TEAC®

A-3300
A-3340

STEREO TAPE DECK

SERVICE MANUAL

1. GENERAL DESCRIPTION

The TEAC A-3340 is a semi-professional tape deck capable of Simul-sync recording, Quadriphonic, Stereophonic and monophonic recording and playback. It offers operating speeds of 7-1/2 and 15 ips and will accept reels of 10-1/2 inches in diameter. The Simul-sync feature permits the recording of discrete but synchronized program material on all four tape tracks.

The TEAC A-3300 is a semi-professional tape deck capable of Stereophonic and Monophonic recording and playback. It is available in three configurations and offers operating speeds of either 3-3/4 and 7-1/2 ips, or 7-1/2 and 15 ips.

The transport mechanisms of the A-3300 and A-3340 are identical with the exception of operating speeds and head configurations.

This service manual provides adjustment and alignment procedures, schematic diagram and parts replacement information and the proper procedures for obtaining necessary repair parts.

If adjustments or repair procedures are not clear or seem difficult to accomplish or should you desire more detailed technical information, please contact your nearest TEAC dealer, TEAC Corporation or affiliated corporations, address's of which are printed in this manual.

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2. SERVICE DATA

MECHANICAL A-3300

Heads:	Three, 4 track 2 channel or 2 track 2 channel stereophonic. Erase, Record and playback. Erase head, 1.8kΩ/100kHz, erase current approx.30mA Record head, 1kΩ/1kHz, bias current approx. 2mA Playback head, 3kΩ/1kHz -53dB
Tape Width:	Standard 1/4 inch tape
Tape Speed:	15ips(A-3300-11), 7-1/2ips and 3-3/4ips
Motors:	Two 6-pole eddy current motors for reel drive. 4/8 pole hysteresis synchronous capstan motor
Wow and Flutter:	Playback Overall 0.15% for 15ips 0.18% for 7-1/2ips 0.20% for 3-3/4ips
Fast Winding Time:	Approx.120 seconds for 10" reel (2,400 ft)
Power Requirements:	100/117/200/220/240V AC 50/60Hz
Weight:	44 lbs (20kg) net.

A-3340

Type:	Four track 4 channel stereophonic Four track 2 channel stereophonic Four track 1 channel monophonic
Heads:	Three: Erase(Ferrite), Record, Playback(Permalloy)
Reel Size:	10-1/2" maximum NAB reel
Tape Width:	Standard 1/4 inch tape
Tape Speed:	15ips and 7-1/2ips (0.5%)
Wow and Flutter:	0.06% at 15ips 0.08% at 7-1/2ips
WEIGHT:	49.5 lbs (22.5kg)

The following chart lists the differences by number A-3300, -10,-11,-12 and A-3340.

MODEL	TAPE SPEED	HEAD CONFIGURATION			
A-3300-10	7-1/2ips, 3-3/4ips	4T	4T	4T	2 Channel
A-3340 A-3300-11	15ips, 7-1/2ips	4T 2T	4T 2T	4T 2T	4 Channel Half Track
A-3300-12	7-1/2ips, 3-3/4ips	2T	2T	2T	Half Track

ELECTRICAL A-3300

Transistors:	2SC1000(BL) × 2 2SC693(GU) × 2 2SA666I(S) × 2 2SC644(T) × 4 2SC828(S) × 8 2SC971 × 2 2SC536(F) × 2
Diodes:	FR2-06 × 4 FR2-10 × 1
Frequency Response:	15ips 30Hz∿22kHz±3 7-1/2ips 40Hz∿18kHz±3 3-3/4ips 50Hz∿10kHz±3
Signal to Noise Ratio:	15ips 52dB or more 7-1/2ips 48dB or more 3-3/4ips 45dB or more (unweighted)
Input:	MIC: 0.3mV/10kΩ LINE: 0.1V/100kΩ
Output:	LINE: approx. 0.3V/10kΩ or more HEADPHONE: 0.3mW/8Ω
Bias Frequency:	100±5kHz push-pull oscillator
Crosstalk Rejection:	35dB adjacent track at 100Hz
Channel Separation:	60dB channel to channel at 1kHz
Erase Efficiency:	60dB or more at 7-1/2ips or 15ips speed

ELECTRICAL A-3340

Frequency Response:	15ips 30Hz∿22kHz ±3dB 7-1/2ips 40Hz∿18kHz ±3dB
Frequency Response at SIMUL SYNC:	15 & 7-1/2ips 30Hz∿7.5kHz ±10dB
Signal to Noise Ratio:	15 & 7-1/2ips 50dB or higher (unweighted)
Crosstalk Rejection:	46dB adjacent track at 1kHz
Channel Separation:	43dB channel to channel at 1kHz

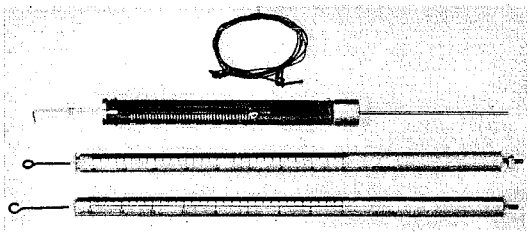
NOTE

As a result of continuing changes and improvements during the production run, minor differences may be found between early and later machines. Refer to manual change sheets for information concerning modifications.

3. EQUIPMENT REQUIRED

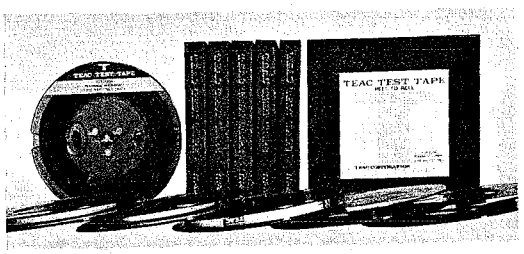
FOR MECHANICAL MEASUREMENT

SPRING SCALE:	0∿3kg (0∿8 lbs) 0∿300g(0∿10 oz)
TEST TAPE:	TEAC YTT-2004 (15 ips) TEAC YTT-2003 (7-1/2ips) TEAC YTT-2002 (3-3/4ips)
FLUTTER METER:	SENTINEL INC FL-3D-1
DIGITAL FREQ. COUNTER:	Capable of 0 to 5kHz indication
TOOLS:	General, 2mm nut driver, Hex head Allen wrench



Spring Scale

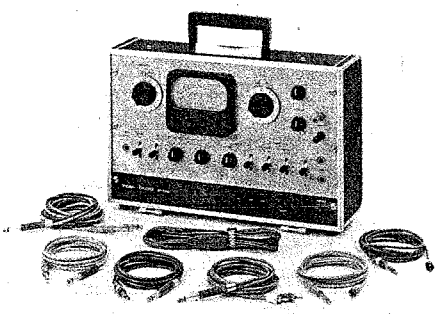
TEAC Hex Allen Wrench



TEAC Test Tapes

FOR ELECTRICAL MEASUREMENT

TEST TAPE:	TEAC YTT-1004 for 15ips TEAC YTT-1003 for 7-1/2ips TEAC YTT-1002 for 3-3/4ips SCOTCH 203 and 150 for recording test
EMPTY REEL:	TEAC RE-702(2" hub) TEAC RE-701(4" hub)
TEST SET:	TEAC M-826A test set
BAND PASS FILTER:	TEAC M-206A(1kHz)
VTVM:	hp model 4302B or equivalent
RESISTOR:	Non inductive type 8 ohm/1W
OSCILLOSCOPE:	General purpose



TEAC Test Set

NOTE

Use of the TEAC M-826A test set is recommended. This set incorporates an AC VTVM, Audio Oscillator, Channel Selecting switch, Variable Attenuator, Monitor Speaker and Cables.

TEAC M-826A measures the RMS value of the Voltage(0 dB = 0.775 V). Characteristics of this test set are similar to the standard VU-meter.

CAUTION

Do not attempt complete disassembly of any of the subassemblies.
The list of individually replaceable parts in the exploded view should be used as a guide to disassembly limits.

REMOVING THE REAR PANEL AND WOODEN SIDES

1. Loosen the four screws on each wooden side.
2. Remove the six screws holding the rear panel.
3. Lift off rear panel.
4. Remove the eight screws in the two wooden sides.
5. Remove the wooden sides.

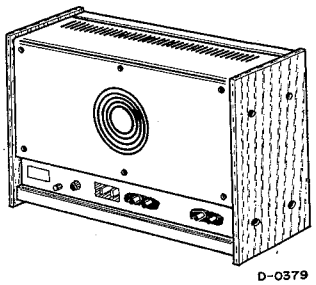


Fig. 4-1 Removing Wooden Sides

REMOVING THE BOTTOM PLATE

1. Place the unit upside down.
2. Remove the three screws in the bottom plate.
3. Lift off bottom plate.

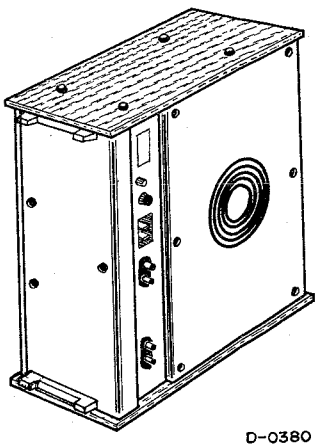


Fig. 4-2 Removing Rear Panel and Bottom Plate

*All amplifier checks and adjustments can be made from the bottom with the plate removed.

CAUTION

These adjustments should be performed by experienced technicians, and then only when going through the complete test and check procedures on the unit which is being tested.

HEAD REPLACEMENT

CAUTION

Power to the unit must be switched off when removing the heads, this will prevent transient pulses from passing through the heads causing strong magnetization or damage to the delicate windings. After head replacement, thorough demagnetization is recommended.

NOTE

The heads of the A-3300/3340 can be changed either as a complete assembly or individually as required.

HEAD ASSEMBLY REPLACEMENT

To change the head assembly as a unit, remove the two mounting screws, (one on each end).
Note the positions of the wires on the circuit board before unsoldering.
Solder the wires of the new assembly in exactly the same positions.

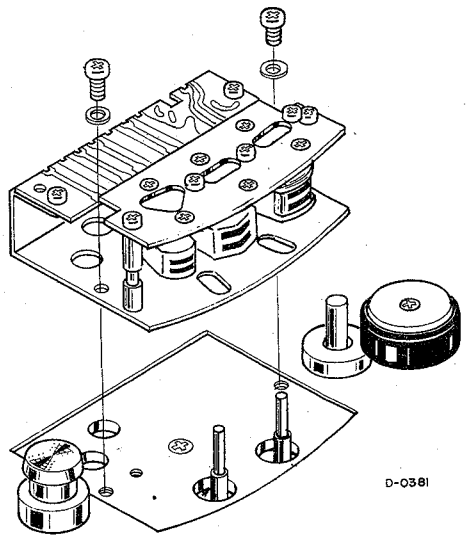


Fig. 4-3 Head Assy

INDIVIDUAL HEAD REPLACEMENT

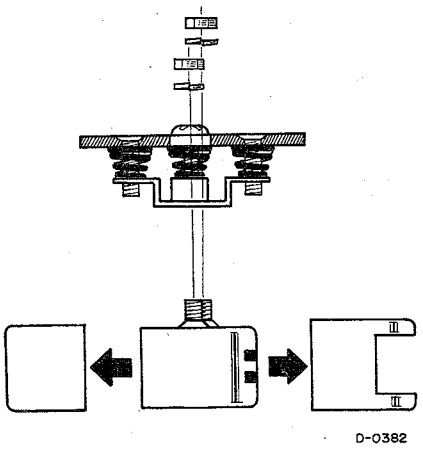


Fig. 4-4 Individual Heads

To replace a single head, a special 2mm nut driver is required. Remove the two nuts on the defective head through the access hole provided, this releases the head from the mounting plate. Note the position of the wires on the circuit board. Connect the new head in the same manner.
Replace the nuts securing the new head to the plate, perform head alignment before operation.
Head installation mounting provides for left or right positioning. After installing heads, determine proper position while recording or playing back a tape.

REMOVAL OF CAPSTAN MOTOR

1. Remove the three screws holding the capstan motor (top).
2. Unsolder the six wire connecting the capstan motor.
3. Remove the four screws holding the capstan motor (bottom).
4. Loosen the two set screws (hex head) in pulley and lift off pulley.

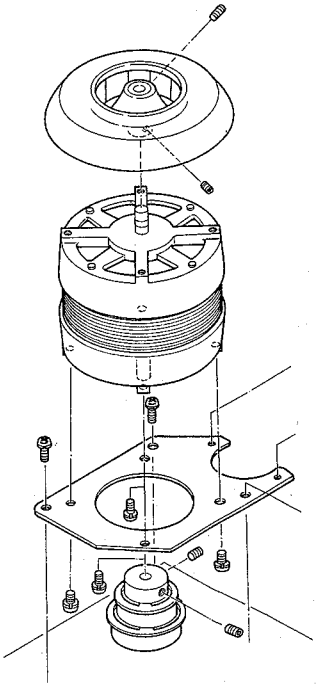


Fig. 4-6 Capstan Motor Removal

REMOVAL OF CAPSTAN ASSY

NOTE

A clearance of 0.01" must maintained between the flywheel and capstan assembly.

1. Unscrew capstan cover (front panel).
2. Remove two screws from rear bracket, allow bracket to drop toward floor of case.
3. Remove capstan belt.
4. Loosen two screws in capstan assy flywheel. Remove flywheel.
5. Remove three screws in capstan assy.
6. Gently move capstan assy up and down until it slides out of panel.

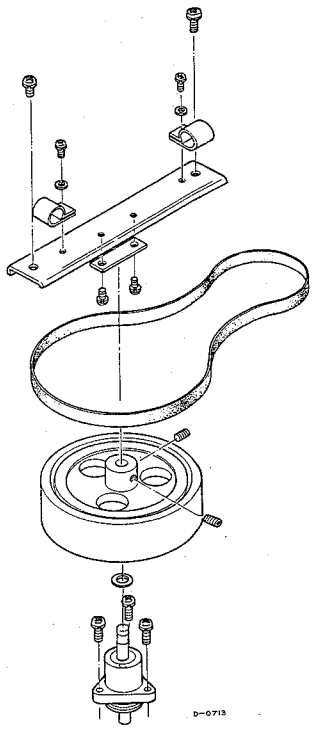
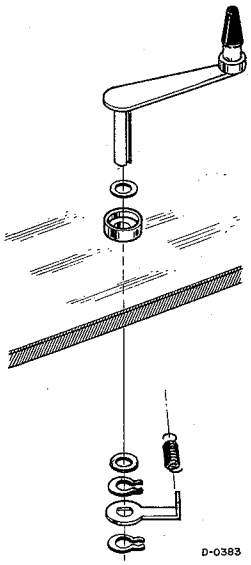
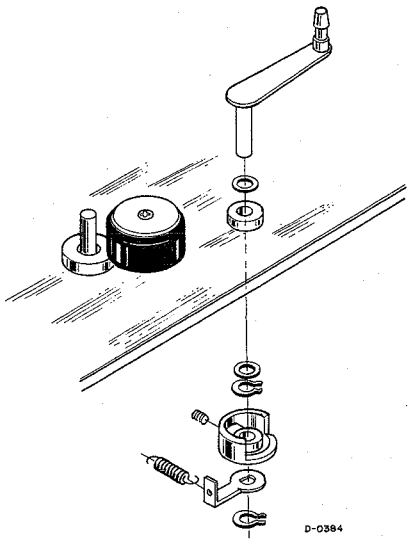


Fig. 4-7 Capstan Assy Removal

REMOVAL OF: TENSION ARMS LEFT & RIGHT

See illustration for complete disassembly instructions.





REMOVAL OF: REEL MOTOR ASSY

1. Loosen 2 hex screws in brake drum, lift off brake drum.
2. Remove 3 screws securing the brake assembly to the motor.
3. Remove reel turntable, remove 4 screws securing motor to front panel.

NOTE

Reel motor assemblies are mirror images of each other, these assemblies are not interchangeable.

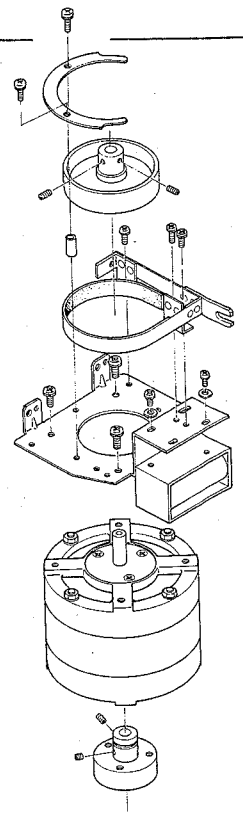


Fig. 4-8 Reel Motor Removal

5. HEAD ALIGNMENT —MECHANICAL—

NOTE
Head alignment is adjusted at the factory to very critical tolerances. Normally HEAD ASSEMBLY replacement will require only minor alignment or adjustments.
Complete readjustment should only be necessary after an individual head is replaced.
The adjustments are made as follows:

ERASE HEAD SECTION

The erase head pole should be above the edge of a threaded tape by the width of heavy pencil line.

RECORD HEAD SECTION

The record head pole should be above the edge of a threaded tape by the width of a thin pencil line.

PLAYBACK HEAD

The pole of the playback head should be even with the top of a threaded tape.

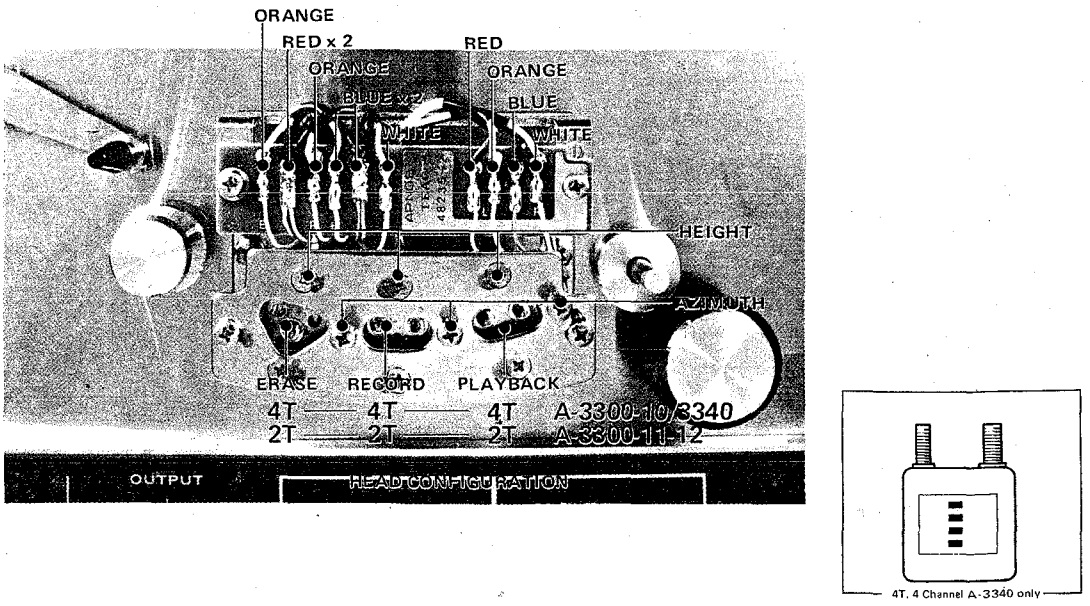
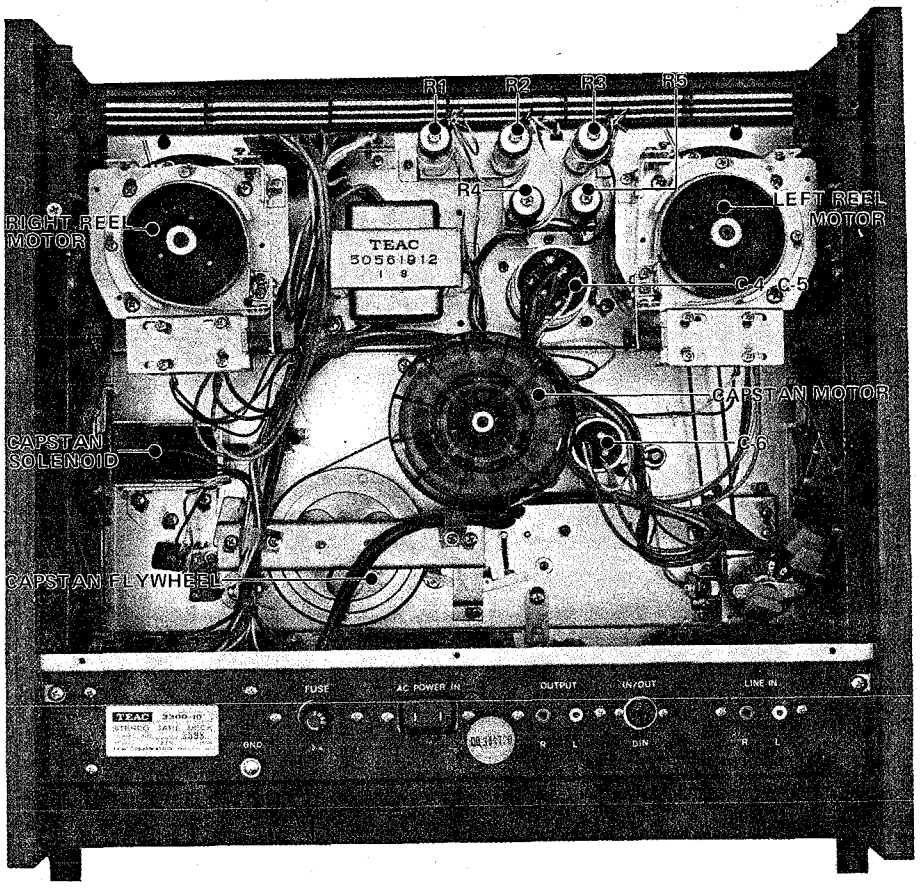


Fig. 5-1 Head Alignment Adjustable Screws

NOTE
Azimuth adjustments are given in the section on MEASUREMENTS AND ADJUSTMENTS -ELECTRICAL-

TAPE TRANSPORT PARTS LOCATION

A-3300/3340



REAR

VOLTAGE AND FREQUENCY CONVERSION

Unit must be set to the power line frequency available. Improper frequency setting will result in a 20% error between the tape speed and reel motors torque.

NOTE

US model is preset to 117V AC and 60 Hz. No frequency conversion is required.
If it should be necessary to convert the A-3340/A-3300 deck to operate from a power source of different voltage or frequency, it may be easily accomplished as follows:

Voltage Conversion:

The A-3340/A-3300 may be set for 100, 117, 200, 220 or 240 volts. To change the voltage unscrew the fuse in the center of the voltage selector plug. Pull out the plug and reinsert it so the desired voltage shows in the cut-out. Reinstall the fuse.

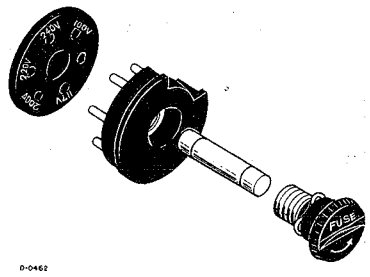


Fig. 6-7 Voltage Conversion

Frequency Conversion:

1. Remove the power cord and all connecting cables.
2. Take off tape deck rear cover by removing the six screws holding it.
3. The belt linking the motor pulley and flywheel must be repositioned. The motor pulley on the Model A-3340/A-3300 has two steps and difference in rotation due to a different power frequency is compensated for by changing the belt step on the pulley.
   Reposition the belt with your fingers, at the flywheel first and then at the pulley when switching from 60 Hz to 50 Hz or the pulley first and then the flywheel when changing from 50 Hz to 60 Hz.
4. After repositioning belt, rotate the flywheel several turns with your finger to make sure the belt is correctly seated on the steps.
5. The frequency selector inside the tape deck must be switched to the frequency of the power line.
6. Reinstall the rear cover of tape deck.

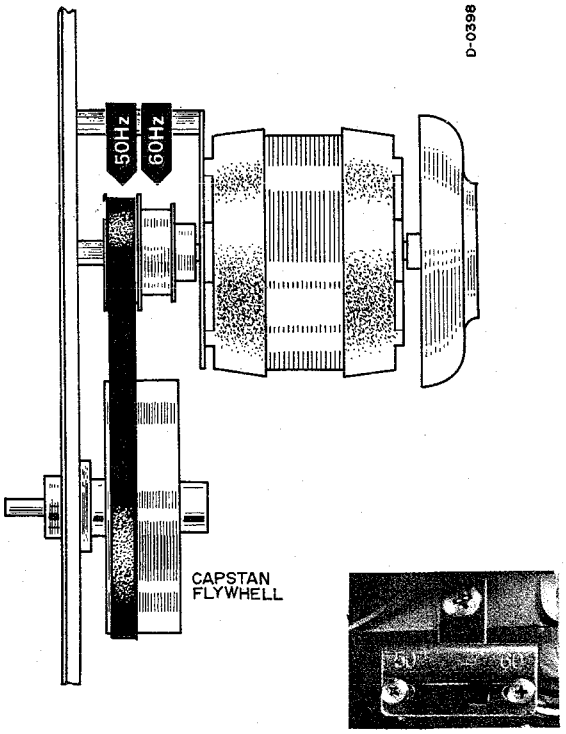


Fig. 6-8 Frequnecy Conversion

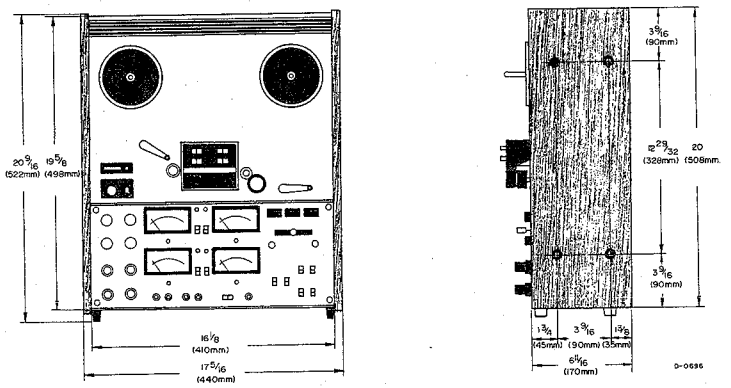
6. MEASUREMENT AND ADJUSTMENT
-MECHANICAL-

The TEAC A-3340/3300, -10-11-12 have a highly reliable three motor drive system and should require a minimum of mechanical maintenance or adjustment.
These adjustments are made at the factory. Readjustment should only be required after many hours of operation or component replacement.

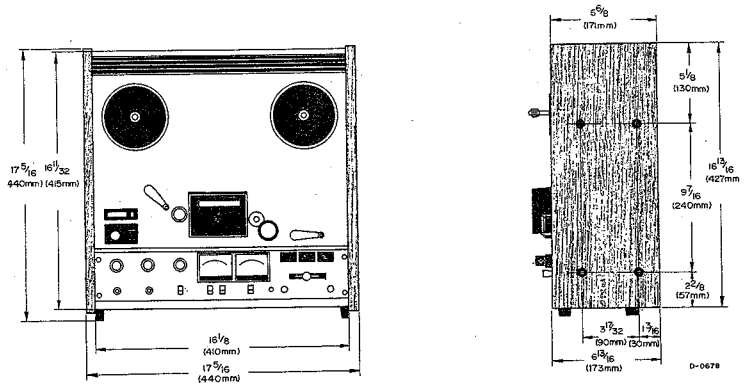
The following chart lists the differences by number A-3300, -10,-11,-12 and A-3340.

MODEL	TAPE SPEED	HEAD CONFIGURATION			
A-3300-10	7-1/2ips, 3-3/4ips	4T	4T	4T	2 Channel
A-3340 A-3300-11	15ips, 7-1/2ips	4T 2T	4T 2T	4T 2T	4 Channel Half Track
A-3300-12	7-1/2ips, 3-3/4ips	2T	2T	2T	Half Track

A-3340



A-3300



Dimensions

PINCH ROLLER PRESSURE

NOTE

Pinch roller pressure is supplied by the pinch roller spring arm and it is most important that the solenoid plunger be fully bottomed before taking pressure measurement.

Procedure For Check And Adjustment

1. Load tape or block the shut-off arm in the on position.
2. Attach a suitable spring scale to the pinch roller shaft.
3. Place the unit in the PLAY mode (▶), and holding the spring scale as illustrated, slowly draw it away from the pinch roller.
4. Do not allow the string to rub against the pinch roller.
5. Note the reading on the spring scale at the instant the pinch roller stops rotating.
6. The scale should indicate 2.1∿2.3 kg. Optimum value is 2.2 kg.
7. If adjustment is necessary, loosen the three screws on the capstan solenoid and position the solenoid for optimum pressure.
8. Adjust solenoid limit position so that the GAP between capstan shaft and pinch roller is approximately 7mm when solenoid is not actuated. Limit is adjusted by loosening the mounting screw (A), mount slot is elongated, slide limit until proper gap is obtained.

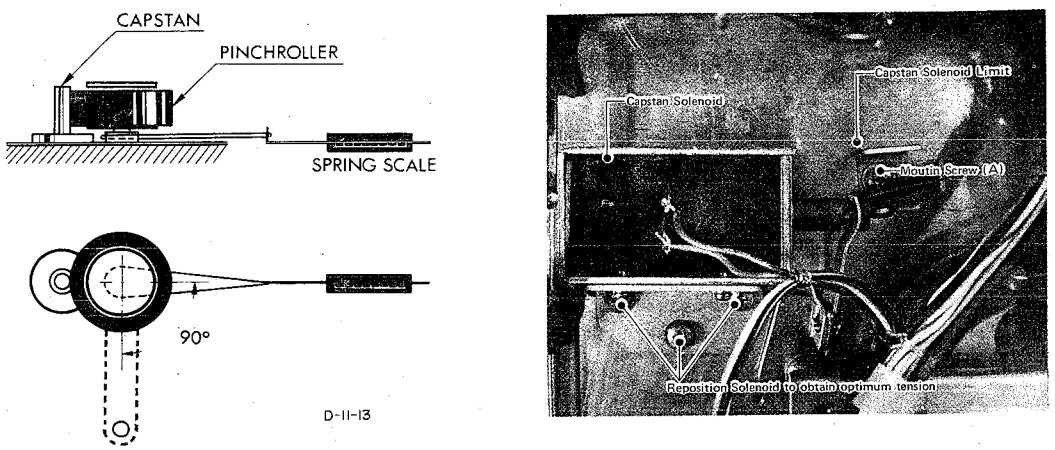


Fig. 6-1 Pressure Measurement -Pinch Roller-

TORQUE MEASUREMENT PROCEDURE

> **NOTE**
> Be sure the full required line voltage is applied and that the unit is set to the proper line frequency.

Supply and take up motor torques should be within the limits listed in the chart below.

A-3300-10, 12

REEL SIZE	TAKE UP TORQUE	BACK TENSION	ADJUSTMENT
LARGE	780∿820 g-cm	300∿320 g-cm	R-2
SMALL	380∿400 g-cm	180∿210 g-cm	R-1

A-3340/A-3300-11

REEL SIZE	TAKE UP TORQUE	BACK TENSION	ADJUSTMENT
LARGE	880∿920 g-cm	300∿320 g-cm	R-2
SMALL	380∿400 g-cm	170∿200 g-cm	R-1

R-1 SMALL reel torque (for both)
R-2 LARGE reel torque (for both)
R-3 LARGE reel torque (balance)
R-4 REWIND BACK TENSION (fixed)
R-5 BRAKE SOLENOID (fixed)

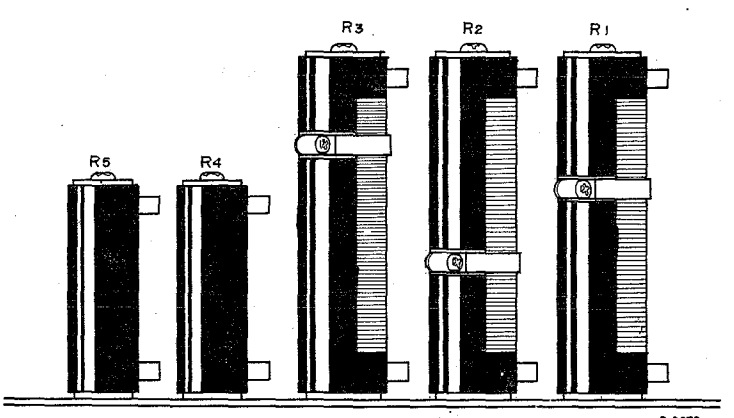


Fig. 6-2 Adjustment Tension Resistors

Procedure For Check And Adjustment

TAKE UP TORQUE

1. Block the shut-off arm in the on position and place REEL size switch to LARGE position.
2. Place an empty reel (RE-701) and spring scale on right reel table.
3. Depress the (▶) play button. Allow the rotation of the reel to slowly draw the scale toward the hub.
4. The spring scale should be 780∿820 g-cm.

5. If it is not adjust resistor R-2 until a scale reading within the specified limits.
6. After adjusting R-2, check back tension of left reel motor, procedure as follows.

BACK TENSION

7. Place the empty reel and spring scale on the left reel table. And depress the (▶) play button.
8. Pull the scale away from the reel against the motor torque (rotation), with a steady smooth motion.
9. The scale should be 300∿320 g-cm. Adjust R-3, if checked value of back tension exceeds the specified limits.
10. After adjusting R-3, adjust R-2 to bring back tension and take up torque to exact specified limits.

NOTE

Adjustments will interact, several adjustments may be required to bring both motors within specification.

11. After adjusting R-2 and R-3 repeat above procedure. When the REEL switch is in the SMALL position, the scale reading should be within the limits listed in the chart. If adjustment is required adjust the resistor R-1.

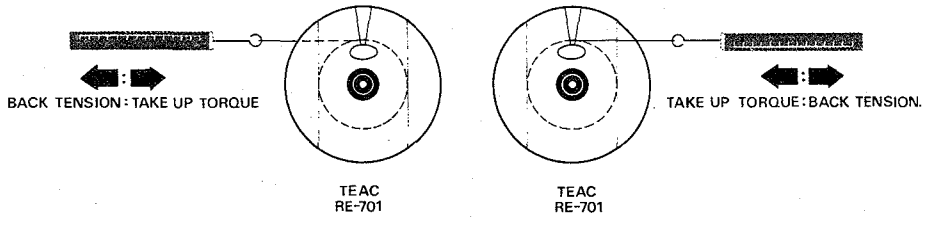


Fig. 6-3 Torque Measurement

BRAKE TORQUE

NOTE

The brake torque is actuated mechanically. Pressure is set by the variable spring force.
While making this measurement and adjustment, be careful not to bend the brake bands.
As brake torque will change with cleaning, brake drums and brake shoes should be cleaned only when absolutely necessary. If cleaning is required, use TEAC cleaner TZ-251B only. After cleaning operate the machine for some time before performing the below procedures.

Brake adjustments are made with no power connected to the equipment.

procedure for check and adjustment

1. Place an empty 2" hub reel on the left reel table, and fasten one end of a 30" length of string to the reel anchor.
2. Wind several turns of string counterclockwise around the hub and attach a suitable spring scale to the free end of the string. Slowly draw the spring scale away from the reel, making sure that the string does not rub against the reel flanges.
3. Take a reading only when the reel is in steady motion since the force required to overcome static friction will produce a false, excessively high initial reading.
4. The reading should be 1.8 kg-cm ±0.1(25 oz-inch).
5. If different, brake torque will normally be adjusted by means of the A & B adjustment screws, loosen locking screw C, adjust A & B for proper torque value, retighten screw C.

NOTE

The difference in readings between the right and left brakes should be kept within 50 g-cm (0.7 oz-inch).

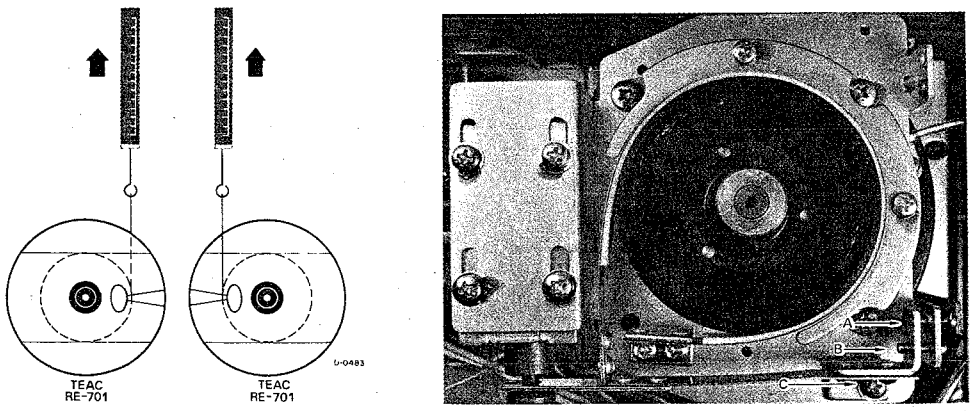


Fig. 6-4 Torque Measurement & Adjustment Location
-Brake-

REEL HEIGHT ADJUSTMENT

Reel height adjustment is required only if a motor has been replaced.
Adjustment is accomplished by loosening the two set screws in the reel turntable collar.
Reel turntable height should be adjusted using standard 7" reels, if 10" reels are used place a TEAC reel height adjusting sheet on each reel turntable.
With a tape threaded on the machine, position the reel height for smooth tape travel. Retighten set screws.

* Reel turntable, if damaged should be replaced as a unit available only as a complete assembly.

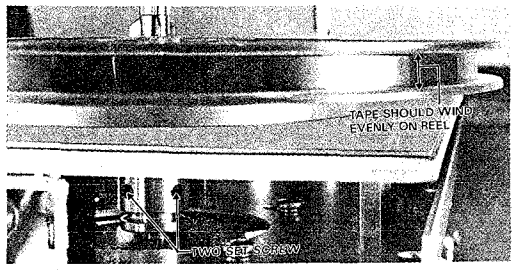


Fig. 6-5 Reel Height Adjustment

FLUTTER

Flutter should be measured in playback mode using a TEAC flutter free tape YTT-2004·2003·2002 and a Sentinel Inc model FL-3D-1 flutter meter.
Measurement of flutter should be made in accordance with NAB standards.
Values obtained with different standards or equipment cannot be compared.
Flutter should not exceed. 15ips: 0.15%
7-1/2ips: 0.20%
3-3/4ips: 0.25%

These figures apply to any tape position and direction(such as full take-up reel, full supply reelor about mid point).

TAPE SPEED

The tape speed should be measured using TEAC flutter free tape, model YTT-2003·2002. These tapes contain a highly accurate 3 kHz tone.
Connect a digital frequency counter to either line LINE OUT jack.
The indicated frequency should be 3 kHz 0.7% for all speeds.

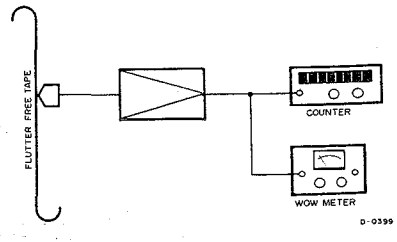


Fig. 6-6 Test Equipment Set-Up Flutter And Tape Speed

7. MEASUREMENT AND ADJUSTMENT

-ELECTRICAL-

GENERAL NOTICE

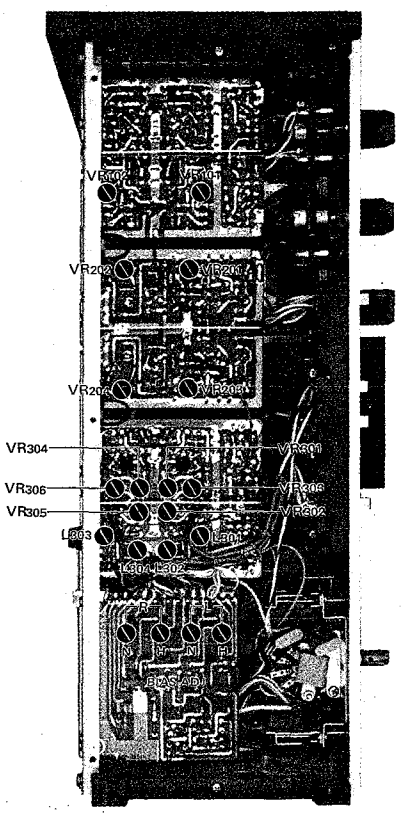
Before performing maintenance on this unit, thoroughly clean and demagnetize the entire tape path.

It is important that the unit be set to the proper voltage and frequency for your locality.

TEAC specified standard test tapes and test equipment must be used when performing maintenance to insure reliable results.

Procedures for checks and adjustments, unless otherwise indicated, are for the left channel at a tape speed of 7-1/2ips. The same procedures are to be applied to the right channel and again for both channels at 3-3/4ips and or 15 ips.
All controls mentioned in this book will be printed in bold letters and will be exactly as they appear on the unit.

Double designated symbol numbers refer to left channel/right channel.



-A-3300/3340-

Fig. 7-1 Adjustment Locations

Only FRONT adjustments are illustrated, REAR adjustments are identical.

L CHANNEL	R CHANNEL	LOCATION
VR101	VR102	PLAYBACK EQ.
VR201	VR203	PLAYBACK LEVEL
VR202	VR204	PLAYBACK METER LEVEL
VR303	VR306	REC METER LEVEL
VR301	VR304	SOURCE MONITOR LEVEL
L 301	L 303	REC EQ.
L 302	L 304	BIAS TRAP
VC401	VC403	BIAS NORMAL ADJ.
VC402	VC404	BIAS HIGH ADJ.

PLAYBACK PERFORMANCE

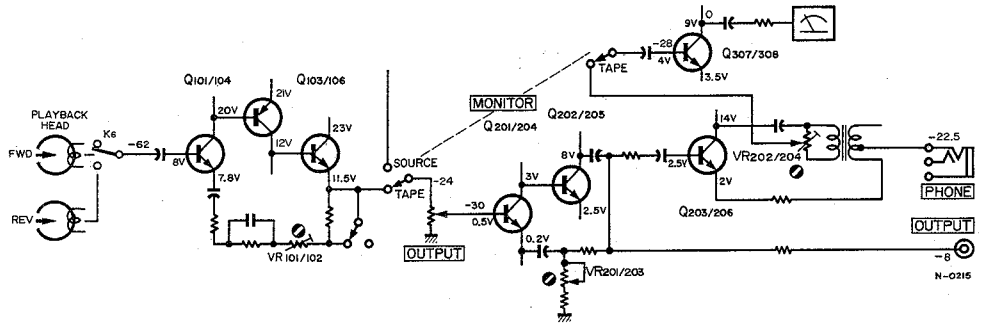


Fig. 7-2 Simplified Diagram -Playback-

PLAYBACK HEAD AZIMUTH ADJUSTMENT

Coarse Adjustment

1. Connect a level meter to either OUTPUT jack.
2. Thread a TEAC test tape YTT-1003 on the unit.
3. Play the 15 kHz test tone in section 2 of the test tape.
4. Slowly rotate the azimuth screw until maximum indication is obtain on the level meter.

NOTE

If during playback, a slight pressure on the heads results in a rise of the reading of the level meter, head alignment adjustments should be accomplished.

Fine Adjustment

CAUTION

After coarse adjustment, do not make large corrections, turn Azimuth screw 1/4 turn or less.

5. It is absolutely essential to accomplish the coarse adjustment before using this method to avoid phase errors larger than 45°.
6. Connect the test equipment as shown in Fig. 7-8.
7. Play a 10 kHz signal and adjust the azimuth screw until the oscilloscope shows that the signals are less than 45° in phase.
8. Secure the screw with a drop of LOCTITE.

SPECIFIED OUTPUT LEVEL SET

NOTE

Connect a 10 kohm load to the LINE OUT jacks when not using the TEAC M-826A (0 dB = 0.775V) level meter.

9. Play the 400 Hz tone in section 1 of the test tape. This tone is recorded at operating reference level (1% of the THD level).

   THD: Third Harmonic Distortion

10. Turn the OUTPUT controls full clockwise, and adjust VR 201/203 for -2 dB reading on level meter.
11. Then turn OUTPUT controls until a -8 dB reading is obtained on the level meter OUTPUT jacks.

NOTE

This is the specified output level set.
Do not disturb this setting until the remaining adjustments have been completed.

VU METER CALIBRATION -PLAYBACK-

12. While playing the 400 Hz tone(1% THD) in section 1 of the tape, adjust VR 202/204 for reading of 0 VU on the VU meter.

FREQUENCY RESPONSE

13. Play the test tones from 15 kHz down to 40 Hz. (Recorded at 10 dB below operating reference level.)
14. Compare the readings obtained on the level meter with the response limits given in Fig. 7-3.
15. In case of any deviation in the response curve, check head azimuth alignment, clean the heads, then adjust VR 101/102 for the best response.

NOTE

7-1/2ips tape speed must be used for frequency response checks and adjustments. Do not attempt these adjustments at 3-3/4ips or 15ips.

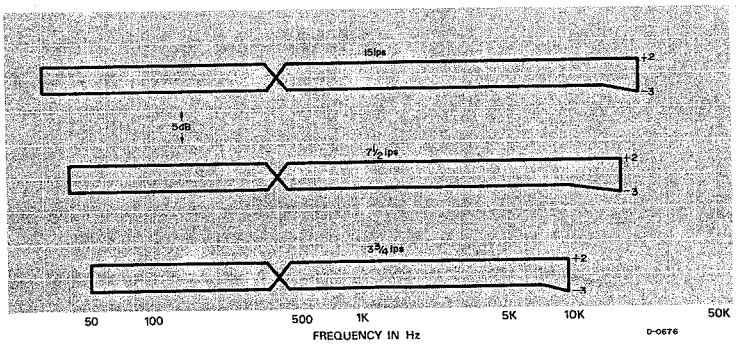


Fig. 7-3 Frequency Response Limits -Playback-

IMPORTANT

Output control should be at specified output level.
The signal to noise ratio must meet factory standards.
The values given are obtained using an unweighted level meter while the supply and take up motors are running.
The values are with reference to a 3% THD level.

1. Thread a tape on the unit, leaving the tape outside the capstan and pinch roller.
2. Place the unit in the PLAY mode (▶) (the tape will not move).
3. The level meter connected to the LINE OUT jacks should indicate -56 dB or less.
4. This corresponds to a signal to noise ratio of 48 dB (difference between residual noise -56 dB and specified output level -8 dB for 1% THD).

   For a 3% THD signal to noise ratio, 6 dB is added, giving 56 dB(3% THD is 6 dB above 1% THD level).
   * Speed for 7-1/2ips.

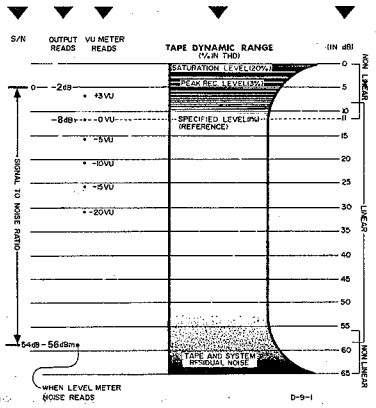


Fig. 7-4 Signal/Noise Computation

MONITOR PERFORMANCE

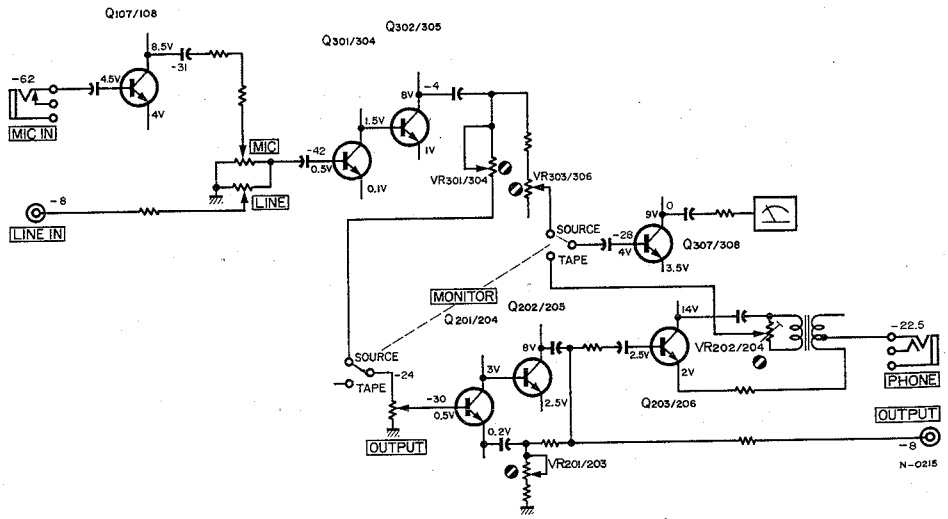


Fig. 7-5 Simplified Diagram -Monitor-

MINIMUM INPUT LEVEL ADJUSTMENT

LINE Input

1. Connect an AF oscillator to the LINE IN jacks.
2. Apply a 400 Hz signal at -18 dB.
3. Place the MONITOR switch in the SOURCE position and turn the LINE controls fully clockwise.
4. Adjust VR 301/304 to obtain a specified output level of -8 dB at OUTPUT jacks.

MIC Input

5. After adjusting VR 301/304, apply a 400 Hz signal at -70 dB to the MIC IN jacks.
6. Rotate the MIC controls fully clockwise.
7. The output should be -8 dB (specified output level).

NOTE

Mic input requires no adjustment, only an operational check. After completing the check rotate mic controls fully counterclockwise to eliminate noise from mic jacks or mic preamplifiers.

SPECIFIED INPUT LEVEL SET

8. Apply a 400 Hz signal at -8 dB to the LINE IN jacks.
9. Adjust the LINE controls with reference marks aligned for -8 dB at the OUTPUT jacks.

NOTE

Do not disturb the specified input level position of these controls until the remaining checks and adjustments are completed.

The difference between the channels must not exceed 2 dB as indicated on the level meter. If it is not within limits, check the amplifier gain, the LINE controls reference marks should be together.

VU METER CALIBRATION -RECORD-

10. With the same 400 Hz signal at -8 dB applied and the MONITOR switch in SOURCE, adjust VR 303/306 for 0 VU on the VU meters.

RECORD PERFORMANCE

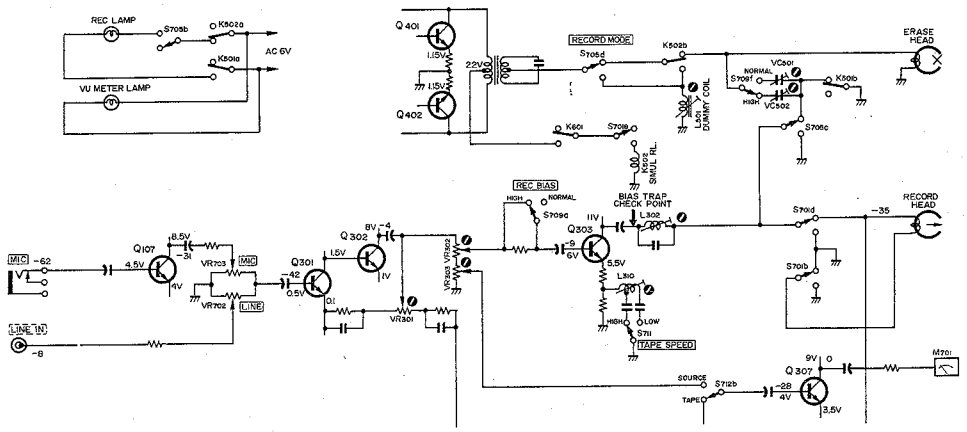


Fig. 8-5 Simplified Diagram -Record-

NOTE

The bias trap tank circuit keeps the bias signal from reaching the record and monitor amplifier and under normal no signal conditions, voltage should not be present at the OUTPUT jacks.

BIAS TRAP ADJUSTMENT

1. Place BIAS switch in HIGH position.
   Place MONITOR switch in TAPE position.
   Place all record mode switches ON.
   Place tape mode lever at PAUSE position.
   Depress record and ▶ buttons.
2. Connect a VTVM to the junction of C-309/L-302.
   Adjust L-302 for minimum reading.
3. Connect a VTVM to the junction of C-318/L-304.
   Adjust L-304 for minimum reading.

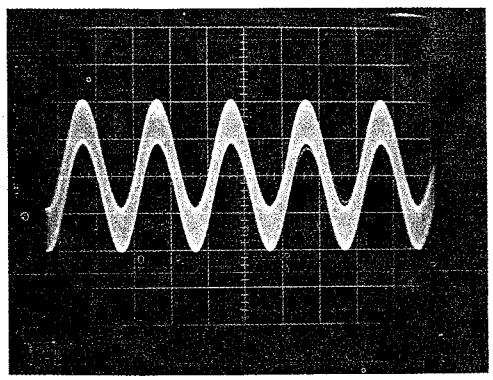


Fig. 8-6 Bias Leakage

BIAS ADJUSTMENT

NOTE

These adjustment are only made at 7-1/2ips tape speed, The bias oscillator frequency is 100 ±5 kHz.

-HIGH position-

1. Thread record test tape Scotch 203 on the unit.
2. Place the bias switch to HIGH and place the unit in the record mode. Place the MONITOR switch in the TAPE position. Apply a 400 Hz signal at -8 dB to LINE IN jacks.
3. Adjust capacitor VC 401/403 for a peak on the level meter. Turn the capacitors clockwise until a decrease of 0.5 dB is obtained.

-NORMAL position-

4. Thread record test tape Scotch 150 on the unit.
5. Place the bias switch to NORMAL and place the unit in the record mode.
6. Adjust capacitor VC 402 and VC 404 for a peak on the level meter. Turn the capacitors clockwise until a decrease of 0.5 dB is obtained.

RECORD HEAD AZIMUTH ADJUSTMENT

Coarse Adjustment

NOTE

The effect of turning the azimuth screw will not immediately register on the level meter. A slight delay will be noticed. Therefore, the screw must be rotated slightly, and then pause to see the effect.

1. Connect a Level Meter to the OUTPUT jacks and an AF oscillator to the LINE IN jacks.
2. Place the MONITOR switch to SOURCE and adjust the AF oscillator to obtain a signal of 15 dB below the specified output level. (The level meter will indicate -23 dB.)
3. Make certain that the LINE control is at the specified input level position, then set the AF oscillator to 10 kHz.
4. Thread a record test tape on the unit and place the mode L·R switches up.
5. Place the MONITOR switch in the TAPE position.
6. Adjust the azimuth screw for maximum indication of the level meter.

Fine Adjustment

NOTE

It is absolutely essential to accomplish the coarse adjustment before using this method, to avoid phase error larger than 45°.

7. Connect the test equipment as shown in Fig. 7-8.
8. Apply a 7.5 kHz signal at -25 dB to the LINE IN jacks and record this signal.
9. Carefully adjust the azimuth screw until the oscilloscope shows the signal to be in phase.
10. Secure the screw with a drop of LOCTITE.

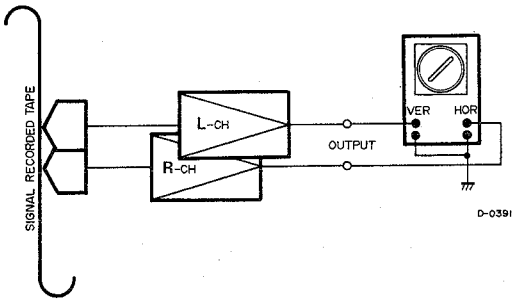


Fig. 7-8 Fine Adjustment Set Up -Head Azimuth-

RECORD LEVEL SET

1. The output controls must be at the specified output level position (-8 dB at output jacks).
2. Apply a 400 Hz signal at -8 dB to the LINE IN jacks.
3. Place the unit in the record mode, the MONITOR switch in the TAPE position.
4. Adjust VR 302/305 for a reading of 0 VU on the VU meter (-8 dB at the OUTPUT jacks).

OVERALL FREQUENCY RESPONSE

IMPORTANT

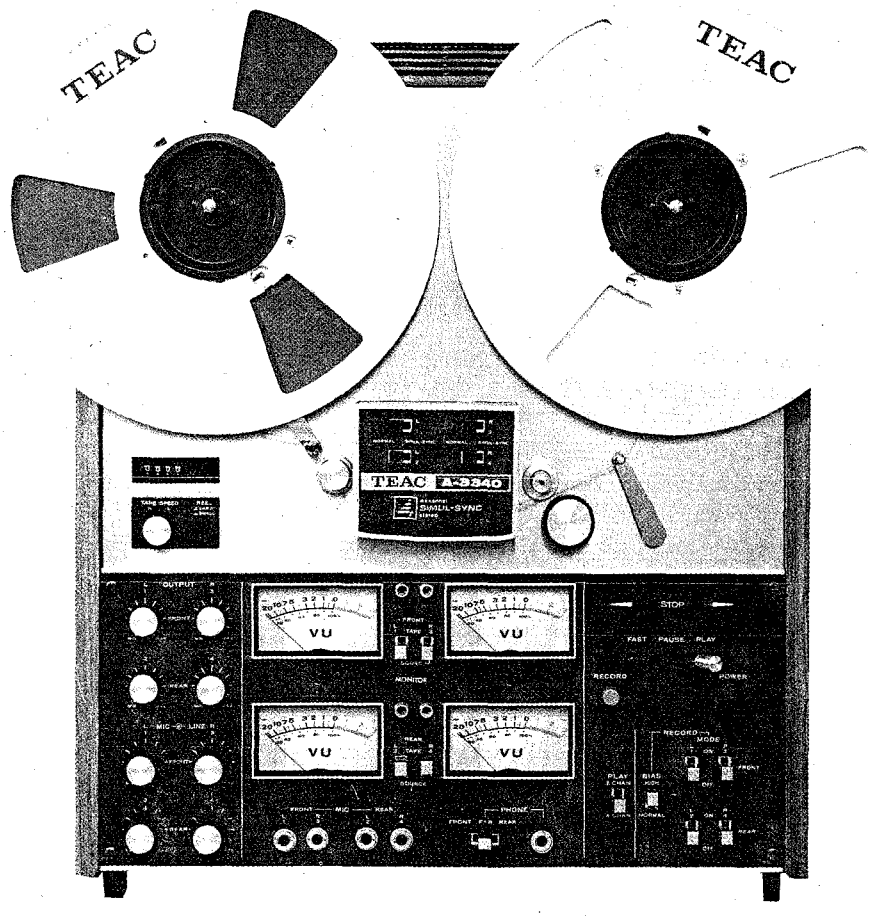
To avoid saturation of the tape, these checks should be made at least 20 dB below the specified input level.
Any bias signal feeding into the test equipment should be filtered out by adjusting the external bias trap. A broad band VTVM may be used on the output of the unit for this adjustment.

-BIAS switch in NORMAL position-

1. Adjust the AF oscillator to obtain an output level of -30 dB(approx. 20 dB below specified output level) at OUTPUT jacks.

TEAC® A-3340

4 CHANNEL SIMUL-SYNC STEREO TAPE DECK



8.A-3340 MEASUREMENT AND ADJUSTMENT

-ELECTRICAL-

Outlined procedures refer only to FRONT channels, the same procedures also apply to REAR channels.

Before performing checks set all head function selector switches to NORMAL position.

Power supply check and adjustment.
Check the voltage at VR-1 and adjust to 24V DC if required. (Refer to control board on the schematic diagram.)

Place MONITOR switches (L1-R3, L2-R4) in TAPE position, place tape speed control at H (high), place PLAY switch in 4 CHAN position.

SPECIFIED OUTPUT LEVEL

1. Play the 400 Hz tone in section 1 of the test tape. This tone is recorded at operating reference level (1% of the THD level).
   THD: Third Harmonic Distortion
2. Turn the output controls fully clockwise, and adjust VR 201/203 for +2 dB reading on level meter.
3. Then retard output controls until a -8 dB is obtained on the level meter at the OUTPUT jacks.

NOTE
This is the specified output level. Do not disturb this setting until the remaining adjustments have been completed.

VU METER CALIBRATION (PLAYBACK)

4. While playing the 400 Hz tone (1% THD) in section 1 of the test tape, adjust VR 202/204 for reading of 0 VU on the VU meters.

5. Set tape speed to H(high) position. Using test tape YTT-1004, play the test tones from 15 kHz down to 50 Hz (recorded at 10 dB below operating reference level).
6. Compare the readings obtained on the level meter with the response limits given in figure 8-1
7. In case of any deviation in the response curve, check head azimuth alignment, clean the heads, then adjust VR 101/102 for the best response.
8. Set tape speed to L(low) using test tape YTT-1003.

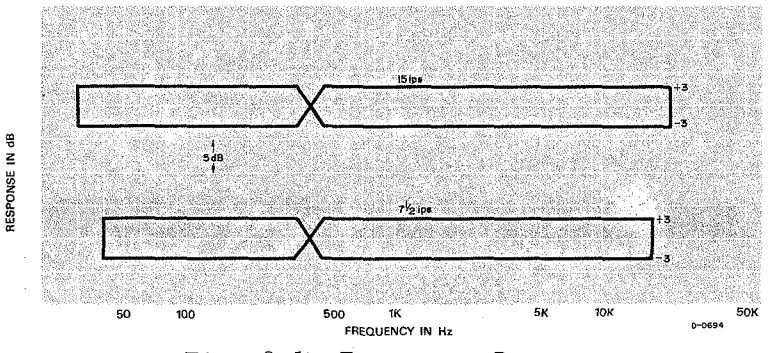


Fig. 8-1 Frequency Response
-Playback-

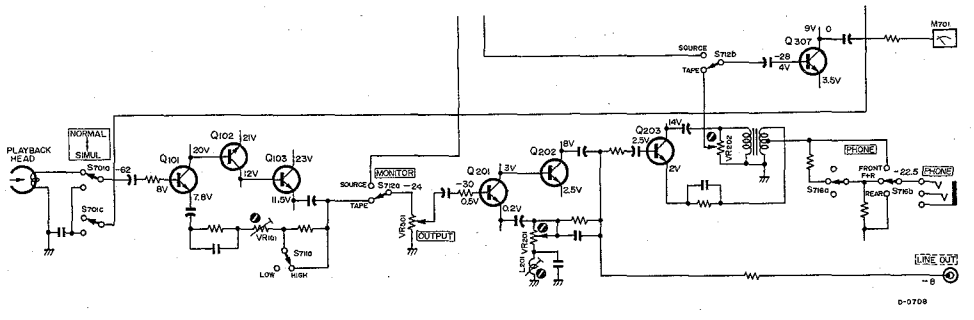


Fig. 8-2 Simplified Diagram

MONITOR PERFORMANCE

MINIMUM INPUT LEVEL

Line Input

With output controls at specified output level

1. Connect an AF oscillator to the LINE IN jacks.
2. Apply a 400 Hz signal at -18 dB.
3. Place the MONITOR switches FRONT and REAR in the source position and turn the LINE controls fully clockwise.
4. Adjust VR 301/304 to obtain a specified output level of -8 dB at OUTPUT jacks.

Mic Input

5. After adjusting VR 301/304, apply a 400 Hz signal at -70 dB to the MIC IN jacks.
6. Rotate the MIC controls fully clockwise.
7. The output should be -8 dB (specified output level).

SPECIFIED INPUT LEVEL SET

With output controls at specified output level

8. Apply a 400 Hz signal at -8 dB to the LINE IN jacks.
9. Adjust the line controls for -8 dB at the OUTPUT jacks.

NOTE

Do not disturb the specified input level position of these controls until the remaining checks and adjustments are completed.
The difference between the channels must not exceed ±2 dB as indicated on the level meter. If they are not within limits, check the amplifier gain and the LINE control settings.

VU METER CALIBRATION -RECORD-

10. With the same 400 Hz signal at -8 dB applied and the MONITOR switches FRONT and REAR in SOURCE, adjust VR 303/306 for O VU on the VU meters.

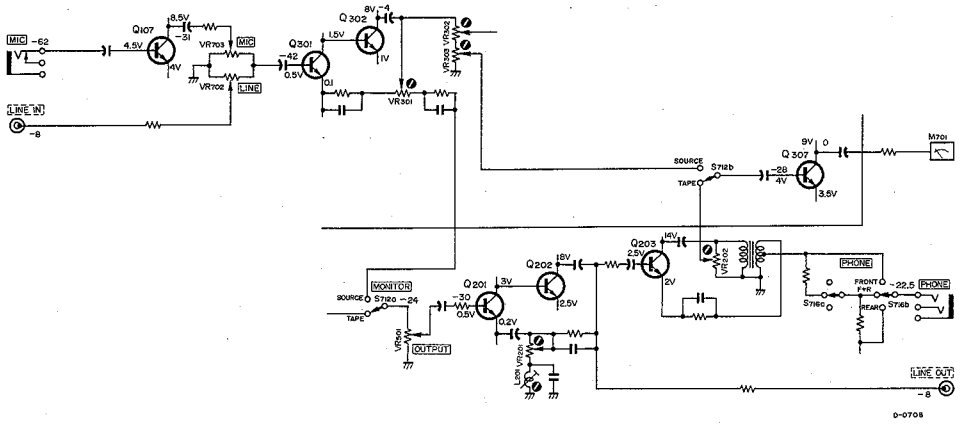


Fig. 8-3 Simplified Diagram -Monitor-

SIMUL SYNC FREQUENCY RESPONSE

15 ips and 7-1/2 ips response should be identical. Frequency response in simul-sync function is measured as in normal operation.

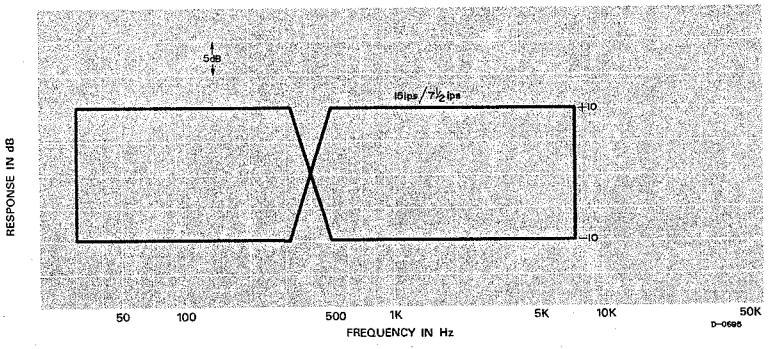
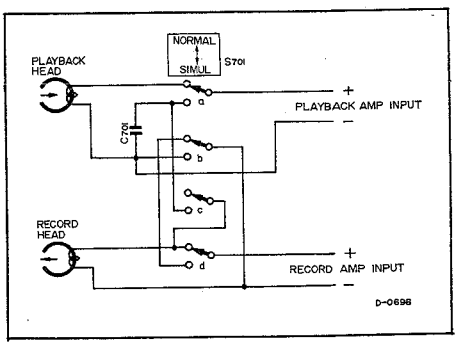


Fig. 8-4 Simul Sync Frequency Response Limits



Simul Sync Diagram

RECORD PERFORMANCE

IMPORTANT

Before making any adjustments on the record amplifier, be sure that all tests in the HEAD ALIGNMENT, PLAYBACK and MONITOR PERFORMANCE sections have been accomplished and that all adjustments are correct.
Optimum recording performance (Bias levels, recording levels and frequency response) is dependent upon tape characteristics. The TEAC A-3300 is factory set for Scotch type 150 tape.
Service data is based upon the use of Scotch 150 or equivalent tape.

NOTE

The bias trap tank circuit keeps the bias signal from reaching the record and monitor amplifier and under normal no signal conditions, voltage should not be present at the OUTPUT jacks.

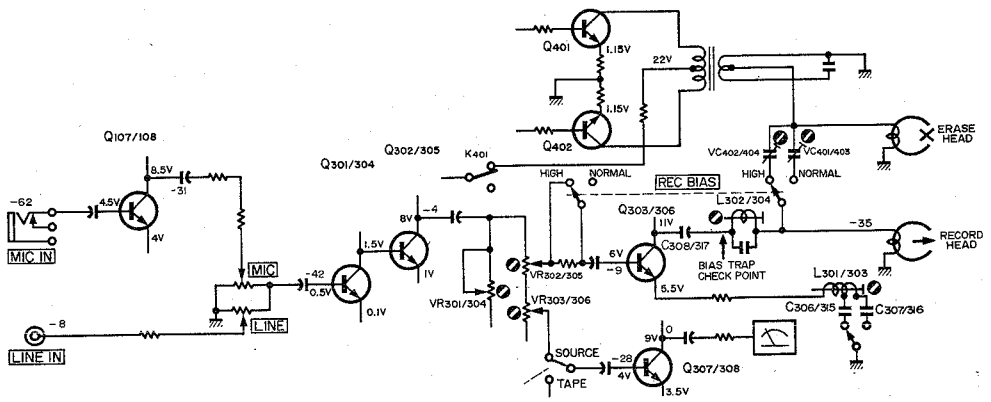


Fig. 7-6 Simplified Diagram -Record-

BIAS TRAP ADJUSTMENT

1. Place the RECORD BIAS switch to HIGH and place the unit in RECORD with no signal applied.
2. Connect a VTVM to the junction of C 309/L 302.
3. Adjust L 302 for a minimum reading.
4. Connect the VTVM to the junction of C 318/L 304.
5. Adjust L 304 for a minimum reading.

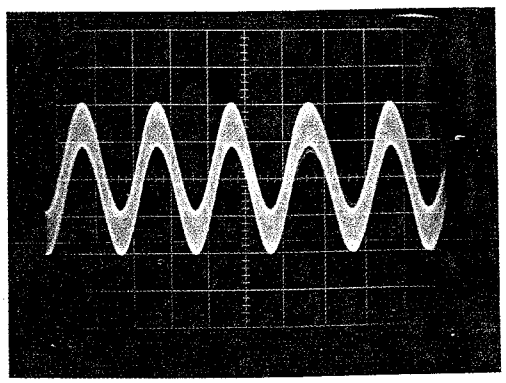


Fig. 7-7 Bias Leakage

BIAS ADJUSTMENT

NOTE

Adjust BIAS trap (L 302/304) before adjusting BIAS levels.

NORMAL Position

1. Thread a record test tape (Scotch 150) on the unit. Place BIAS switch in NORMAL position.
2. Place MONITOR switches in TAPE position.
3. Apply a 400 Hz signal at -8 dB at the LINE IN jacks.
4. Adjust VC 501/503 for a peak on the level meter.
5. Turn the capacitors clockwise until a decrease of 0.5 dB is obtained.

HIGH Position

1. Thread a record test tape (Scotch 203) on the unit. Place BIAS switch to HIGH position.
2. Place MONITOR switches in TAPE position.
3. Apply a 400 Hz signal at -8 dB at the LINE IN jacks.
4. Adjust VC 502/504 for a peak on the level meter.
5. Turn the capacitors clockwise until a decrease of 0.5 dB is obtained.

RECORD LEVEL SET

1. Using Scotch 203 tape, BIAS switch at HIGH position. Apply a 400 Hz signal at -8 dB at the LINE IN jacks.
2. OUTPUT controls must be at specified output level setting (-8 dB at OUTPUT jacks).
3. Place unit in record mode, monitor switches in the SOURCE position.
4. Adjust VR 302/305 for a reading of 0 VU on the VU meters. (-8 dB at the OUTPUT jacks.)

OVERALL FREQUENCY RESPONSE

To avoid saturation of the tape these checks should be made at least 20 dB below the specified input level. Any bias signal feeding into the test equipment should be filtered out by adjusting the external bias trap. A broad band VTVM may be used at the output for this adjustment.

-BIAS switch in NORMAL position-

1. Thread the unit with a record test tape (Scotch 150). Set tape speed selector to H (15ips).
2. Adjust the AF oscillator to obtain an output level of -23 dB at OUTPUT jacks.
3. Apply a signal swept from 50 Hz to 18 kHz to the unit while recording on the test tape. With MONITOR switch at TAPE position monitor the output at the VTVM. See figure 8-7 for proper response limits.
4. Repeat the above procedures for L (7-1/2ips), using a signal swept from 50 Hz to 15 kHz.

NOTE

If response is not uniform the heads should be checked for accumulated dirt or tape oxide.

If heads are clean the equalization coils L 301 and L 303 should be adjusted (both speed).

-BIAS switch in HIGH position-

1. Thread the unit with a record test tape (Scotch 203).
2. Repeat the overall response check at both tape speeds. The record equalization should give the proper frequency response.

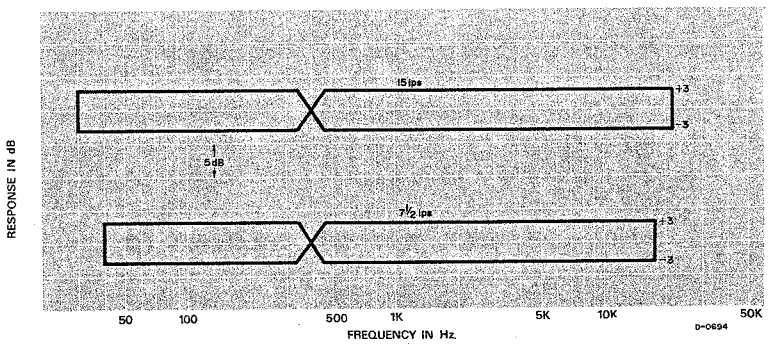


Fig. 8-7 Frequency Response Limits

9. PREVENTIVE MAINTENANCE

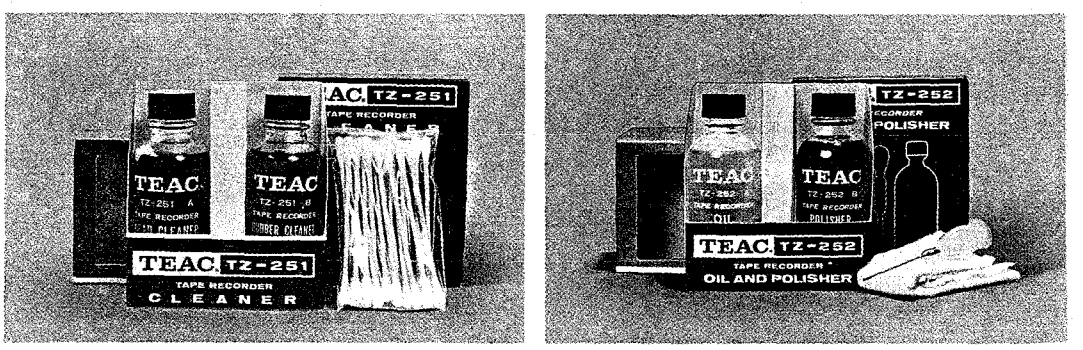


Fig. 9-1 Maintenance Equipment

CLEANING

If excess oxide accumulates on the surface of tape path components, normal operation and characteristics cannot be expected. Periodic cleaning should be done with proper cleaning materials. Refer to Operating Instructions.

DEMAGNETIZATION

Metal parts in contact with the tape will become magnetized after long periods of use(except erase head). Magnetization of record/playback heads causes noise in recording and reproduction and heads should be demagnetized at every 50 hours of use, and before any important recording is done. Refer to Operating Instructions.

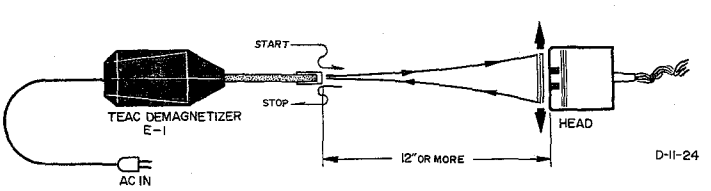


Fig. 9-2 Demagnetization

LUBRICATION

Under normal conditions the unit will not require lubrication. Most of the bearings and bushings are of the oilless type. Since there are many rubber parts in the transport mechanism, excessive or improper lubrication could cause problems. If lubrication is required, the following points should be lubricated:

Capstan bushing, pinch roller shaft ..... 1 drop
Motor ..... 1 - 2 drops in the plastic tubes

Parts to be lubricated should be cleaned and old oil and dirt removed before relubricating. Observe instructions as to type of oil, points to be lubricating.

Motors should be lubricated immediately after use while still warm. After oiling motors keep the unit in the horizontal position for 2 - 3 hours to allow thorough absorption of oil.

VENTILATION

During use the face plate of the A-3340/3300 may become quite warm to the touch, this entirely normal.
AS long as the air vents in the rear plate are unobstructed, the unit will not overheat.
However, if the unit is placed snugly against a wall, or free air passage is prevented, overheating and possible damage may occur.

10. TROUBLE SHOOTING

NOTE

About 50% of the units that are returned for repair do not function properly due to poor connections, dirty heads, poor tape, or improper operation.
The following guide lists specific difficulties that could occur in the A-3300/3340
Several possible causes are listed for each malfunction.
Visually inspect the unit for any damage such as broken or burned components or wiring, loose connections, etc.

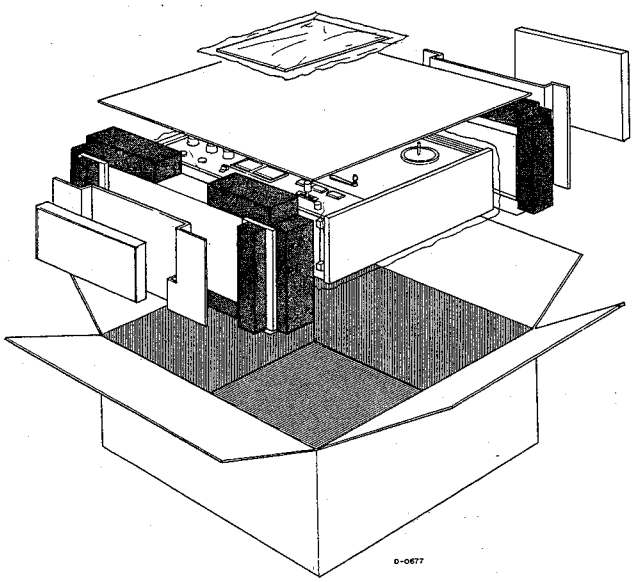
MALFUNCTION	POSSIBLE SOURCE OF TROUBLE	CORRECTIVE PROCEDURE
Capstan fails to turn	Belt off slipping, line fuse(F-1), auto-shut off switch(SW-2), speed select switch(SW-8).	Refer to schematic diagram and repair or replace the defective components.
Pinch roller fails to contact capstan in play mode	AC voltage, position, stop switch(SW-3), rewind relay (K-1), capstan solenoid.	The normal DC resistance of the capstan solenoid is 1.3k ohms. Refer to schematic diagram and repair or replace the defective components.
Right reel does not rotate in the play mode	Resistor(R-2), rewind relay (K-1), capacitor(C-4)	Refer to schematic diagram and repair or replace the defective components.
Left reel does not rotate in play mode	Resistor(R-3), rewind relay (K-1), capacitor(C-5)	Refer to schematic diagram and repair or replace the defective components.
Left reel operates with low torque	Resistor(R-6), tension switch	Repair or replace defective components.
Both reel motors fail to operate	Operating relay(K-1)	Clean contacts on(K-1) or replace relay.
Recorder does not operate in forward play	Remote control jumper plug missing or loose, stop switch(SW-8), operate relay (K-1), brake solenoid, diode(DC 24V)	Normal DC resistance of the brake solenoid is 1.3k ohms. Refer to schematic diagram and repair or replace the defective components.
Playback noise or hum	Faulty connections, head selector switch, faulty playback head, faulty amplifier	Repair or replace defective components.

MALFUNCTION	POSSIBLE SOURCE OF TROUBLE	CORRECTIVE PROCEDURE
Noise or hum during record	Magnetized head, faulty connections, mic level set to maximum, faulty record amplifier, record relay (K-401).	Demagnetize and clean head, repair or replace defective components.
Wow & flutter	Defective tape, dirty or defective pinch roller, oily or defective belt, reel motor tension.	Clean or replace defective components. Adjust motor tension.
Incorrect tape speed	Drive belt in wrong position. Incorrect pinch roller pressure.	Reposition drive belt. Adjust pinch roller pressure.
Brakes do not release	Defective brake solenoid	The D.C. resistance of the brake solenoid should be 1.3k ohms. Replace solenoid.
Fast forward or rewind mode inoperative	Rewind relay(K-3)	Refer to schematic diagram and repair or replace the defective components.
No record and/or no erase	Record head dirty, erase head dirty, operate relay (K-1), record switch(SW-6), record relay(K-401), record amplifier, bias oscillator, record head, erase head.	Refer to schematic diagram and repair or replace the defective components. For record amplifier troubleshooting refer to voltage chart.
No playback	Playback head dirty, amplifier to deck connections, monitor switch(SW-501), playback amplifier.	Refer to playback amplifier voltage chart.

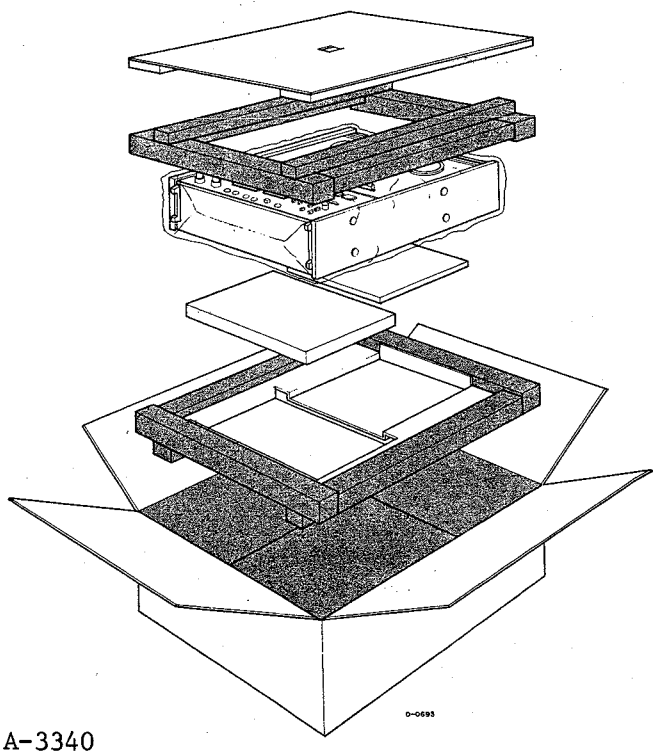
11. PACKING FOR SHIPMENT

SHIPPING INSTRUCTIONS

If the unit is to be sent back to the TEAC factory (service department) for repair, carefully pack as shown below.



A-3300



A-3340

TEAC CORPORATION	3-7-3 NAKA-CHO MUSASHINO TOKYO PHONE (0422) 53-1111
TEAC CORPORATION OF AMERICA	7733 TELEGRAPH ROAD MONTEBELLO CALIFORNIA 90640 PHONE (213) 726-0303
TEAC AUSTRALIA PTY., LTD.	115 WHITEMAN STREET SOUTH MELBOURNE VICTORIA 3205 PHONE 699-6000

PRINTED IN JAPAN 0881 SYU 0.35

2. Apply a signal swept from 50 Hz to 15 kHz to the unit while recording on a record test tape. Refer to Fig. 7-9.
3. Repeat the above procedure for 3-3/4ips using a signal from 50 Hz to 7.5 kHz.

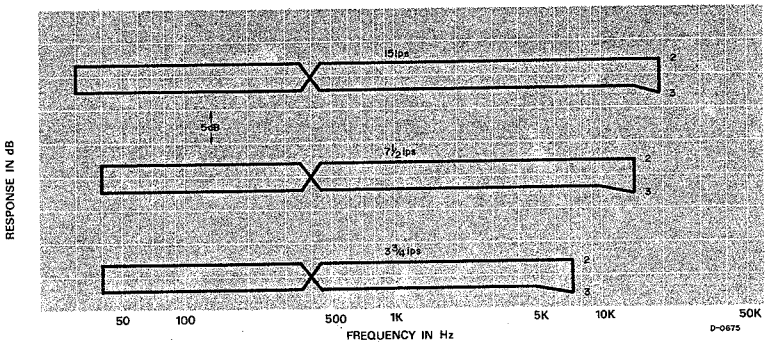


Fig. 7-9 Frequency Response Limits -Record-

NOTE

If the response is not uniform, the heads should be checked for accumulated oxide and dirt.
Then if no dirt is found, the equalization coils L 301/303 should be adjusted.

4. If further adjustment is required, C 306/315 must be changed, if the high end response is too high, a lower value capacitor must be installed.

-BIAS switch in HIGH position-

No adjustment is given for this procedure.

5. Thread a Scotch 203 high output tape on the unit.
6. Place the BIAS switch in the HIGH position.
7. Repeat the overall response check at both tape speeds.
8. The record equalization should give the proper frequency response.

LEVEL VARIATIONS

Using Scotch 203 test tape, recorded at the specified level setting with bias control in high position, during playback the output level variations should not exceed those shown in the below chart.

7-1/2ips:	0.5dB at 400Hz
	1.0dB at 10kHz
3-3/4ips:	1.0dB at 5kHz

OVERALL SIGNAL TO NOISE RATIO

IMPORTANT

Clean and demagnetize the heads before proceeding. It is extremely important that all tests described in the proceeding paragraphs have been completed and that all controls adjusted are left unalterd.

1. Thread a record test tape (Scotch 203) on the unit.
2. Remove the AF oscillator from the LINE IN jacks.
3. Place the unit in the RECORD mode with no signal applied. BIAS switch in HIGH position.

NOTE

Noise readings, when taken while recording, may be affected by the bias signal which could be leakings through. It is therefore good practice to rewind the no signal recorded section and take the noise reading during playback.

4. Note the point on the index counter where recording begins.
5. Rewind the tape and play it back.
6. The noise level as indicated on the level meter should be -56 dB or less. (See figure 7-5 Computation Section.)

NOTE

Bias, erase and playback amplifier noise are all included in this measurement.
All frequencies between 40 Hz and 15 kHz are measured unweighted.

ERASE EFFICIENCY

NOTE

To measure erase efficiency, a 1 kHz band pass filter (TEAC M 204 CL filter) must be used.

Due to the high level of this signal, it is recommended that only a short recording be made (approximately 30 seconds) to prevent damage to the VU meter.

1. Apply a 1 kHz signal at 0 dB to the LINE IN jacks.
2. Place the unit in record mode and record this signal.
3. Rewind the recording to the beginning and remove the AF oscillator from the LINE IN jacks.
4. Place the unit in RECORD mode and record over this portion of tape again.
5. Rewind the tape to the starting point and connect a level meter to the OUTPUT jack, through the 1 kHz band pass filter.
6. Play the erased portion of the tape.
7. The level meter should indicate -60 dB or less.

EXPLODED VIEW AND PARTS LIST

FOR **A-3300**

REPLACEMENT INFORMATION

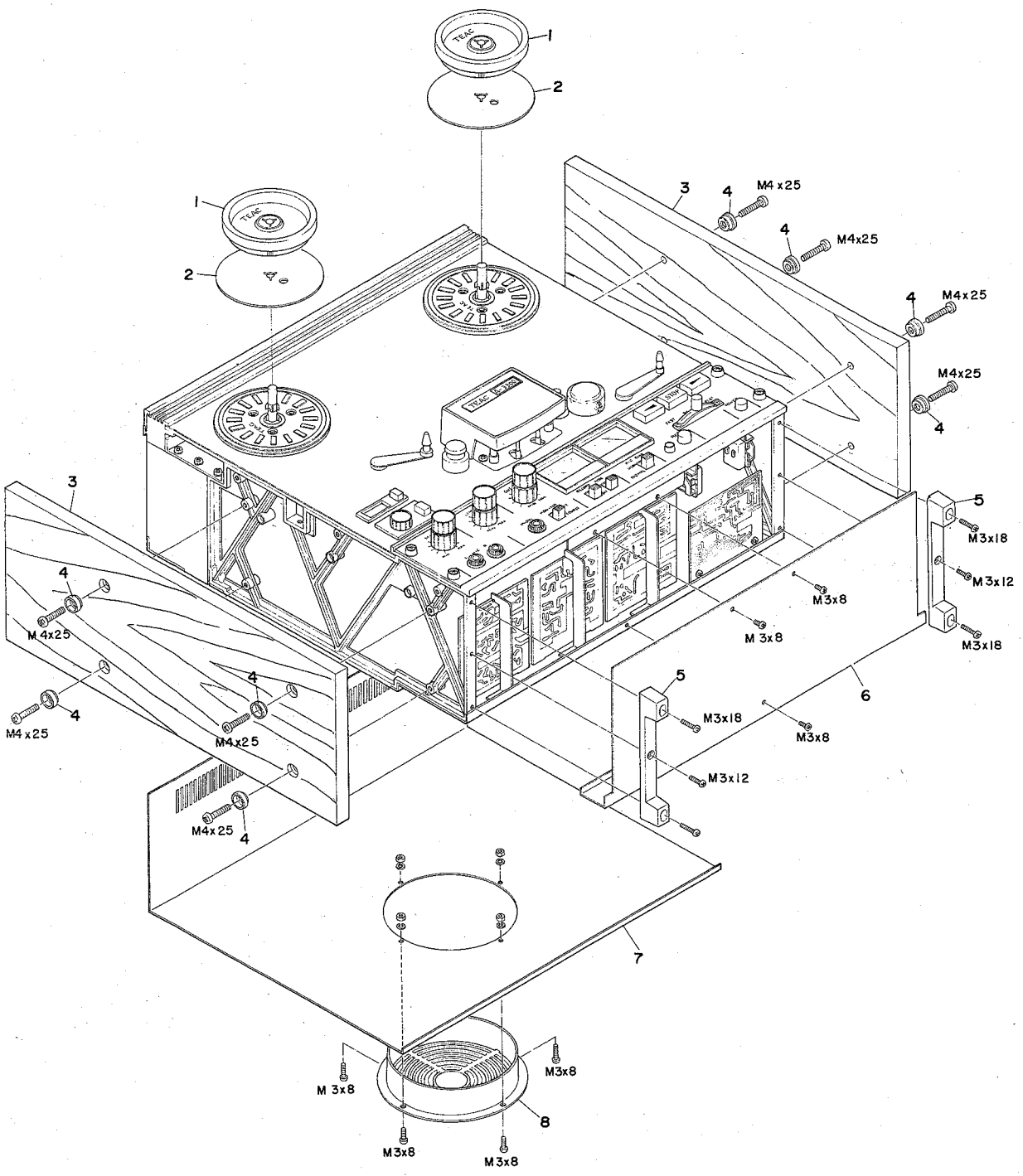
Replacement part are available through your nearest TEAC dealer or directly from the TEAC office.
Changes are constantly being made to make TEAC products better and more reliable.
Therefore, when ordering parts, always include the following information:

MODEL SERIAL NO. REF NO. PART NO. DESCRIPTION

TEAC CORPORATION

EXPLODED VIEW
A-3300

TRIM PARTS

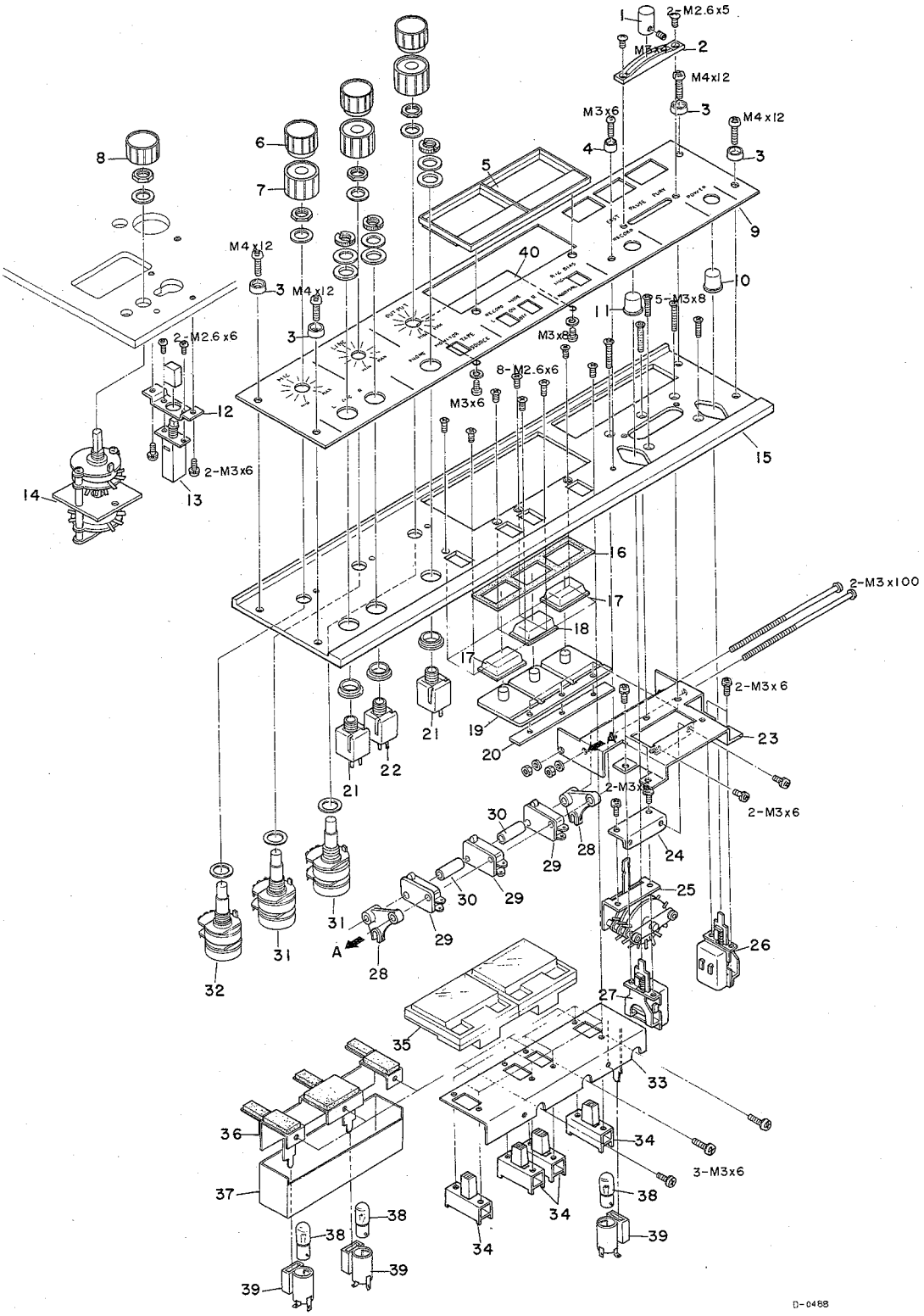


TRIM PARTS

REF NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
1-1	50160270	Reel Holder			
1-2	50162851	Reel Table Mat			
1-3	50288011	Side Board, A (Right)			
	50288021	Side Board, B (Left)			
1-4	50276930	Washer, Trim			
1-5	50277980	Mount Foot			
1-6	50296730	Cover, Bottom			
1-7	50287620	Cover, Rear Assy			
1-8	50276961	Cover, Fan			

EXPLODED VIEW
A-3300

CONTROL PANEL

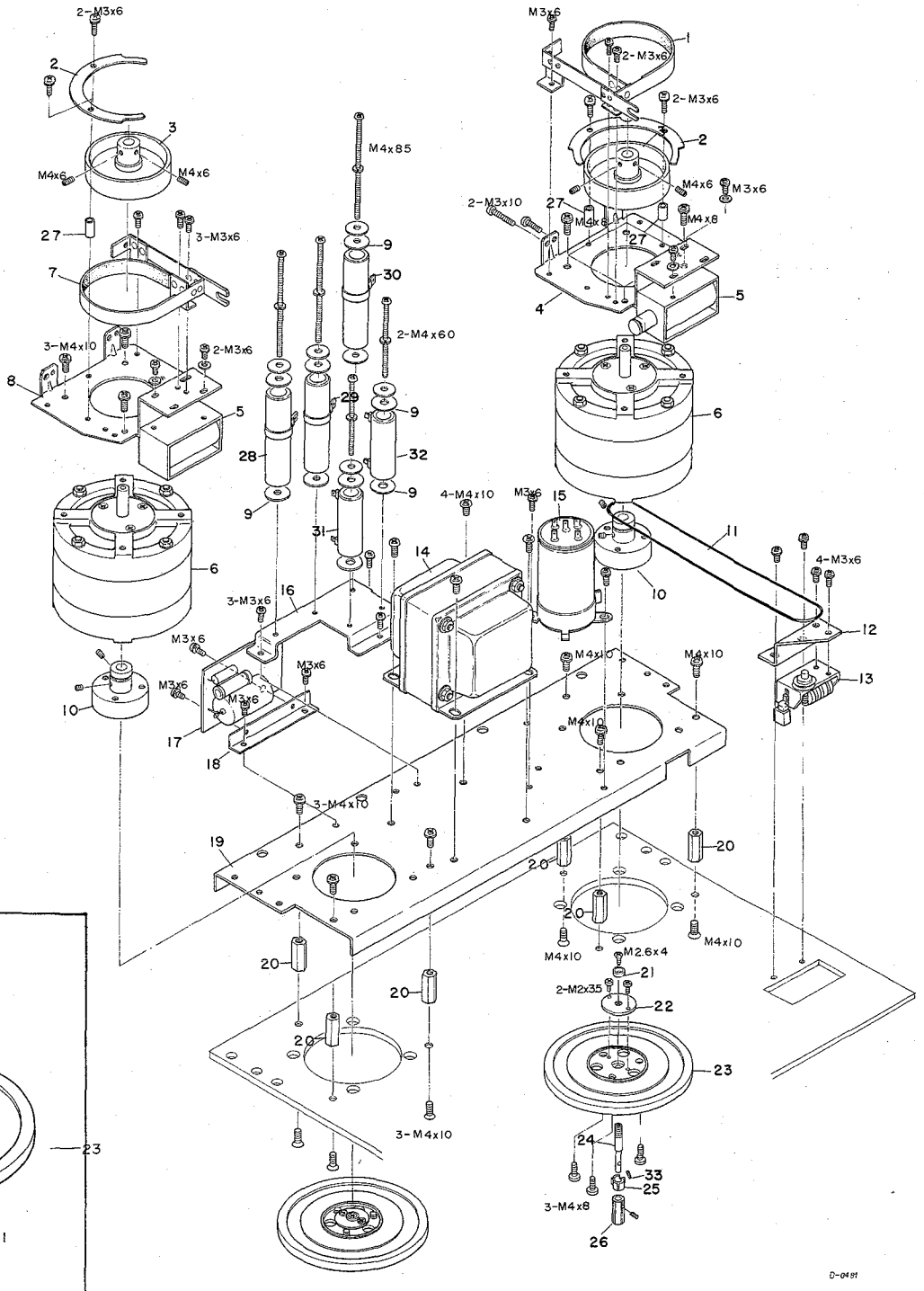


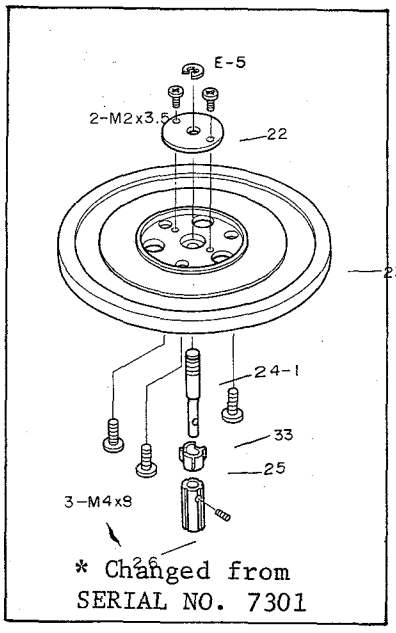
CONTROL PANEL

REF NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2- 1	50253470	Knob, Control SW, D			
2- 2	50449900	Cover, Lever Switch			
2- 3	50277111	Washer, Trim			
2- 4	50419060	Holder, Pilot			
2- 5	50279830	Escutcheon, VU Meter			
2- 6	50253390	Knob, Upper			
2- 7	50253400	Knob, Lower			
2- 8	50253390	Knob, Upper			
2- 9	50113441	Trim Panel, Amp			
2-10	50253120	Push Button, A			
2-11	50253130	Push Button, B			
2-12	50235341	Plate, Push Switch			
2-13	50443690	Switch, Push			
	50253561	Push Button, Push Switch			
2-14	50442360	Switch, Rotary			
2-15	50113452	Panel, Front			
2-16	50277160	Rubber Protector			
2-17	50253210	Push Button, Operate			
2-18	50253200	Push Button, Stop			
2-19	50253113	Push Button Base			
2-20	50277240	Rubber Plate			
2-21	50430240	Jack, Phone, Single			
2-22	50432450	Jack, Phone, 3 cond			
2-23	50277781	Plate, Control Base			
2-24	50277771	Plate, Lever Switch			
2-25	50442350	Switch, Rotary (Lever Type)			
2-26	50443210	Switch, Push			
2-27	50443410	Switch, Push			
2-28	50241120	Spacer, Control SW, A			
2-29	50446170	Switch, Micro			
2-30	50277540	Base Plate Holder			
2-31	50537100	Potentiometer, Dual 10kΩA × 2			
2-32	50537090	Potentiometer, Dual 100kΩA × 2			
2-33	50330541	Plate, Slide Switch			
2-34	50444170	Switch, Slide	50440000		
2-35	50581331	VU Meter			
2-36	50330810	Meter Retainer Assy			
2-37	50330570	Light Shield Housing			
2-38	50414131	Lamp, Record 8V	50414510		
2-39	50415030	Socket, Lamp	50415250		
2-40	50331630	Clamp, Meter Escutcheon			

EXPLODED VIEW
A-3300

REEL MOTOR ASSY





* Changed from SERIAL NO. 7301

Refer to insert illustration for later models.

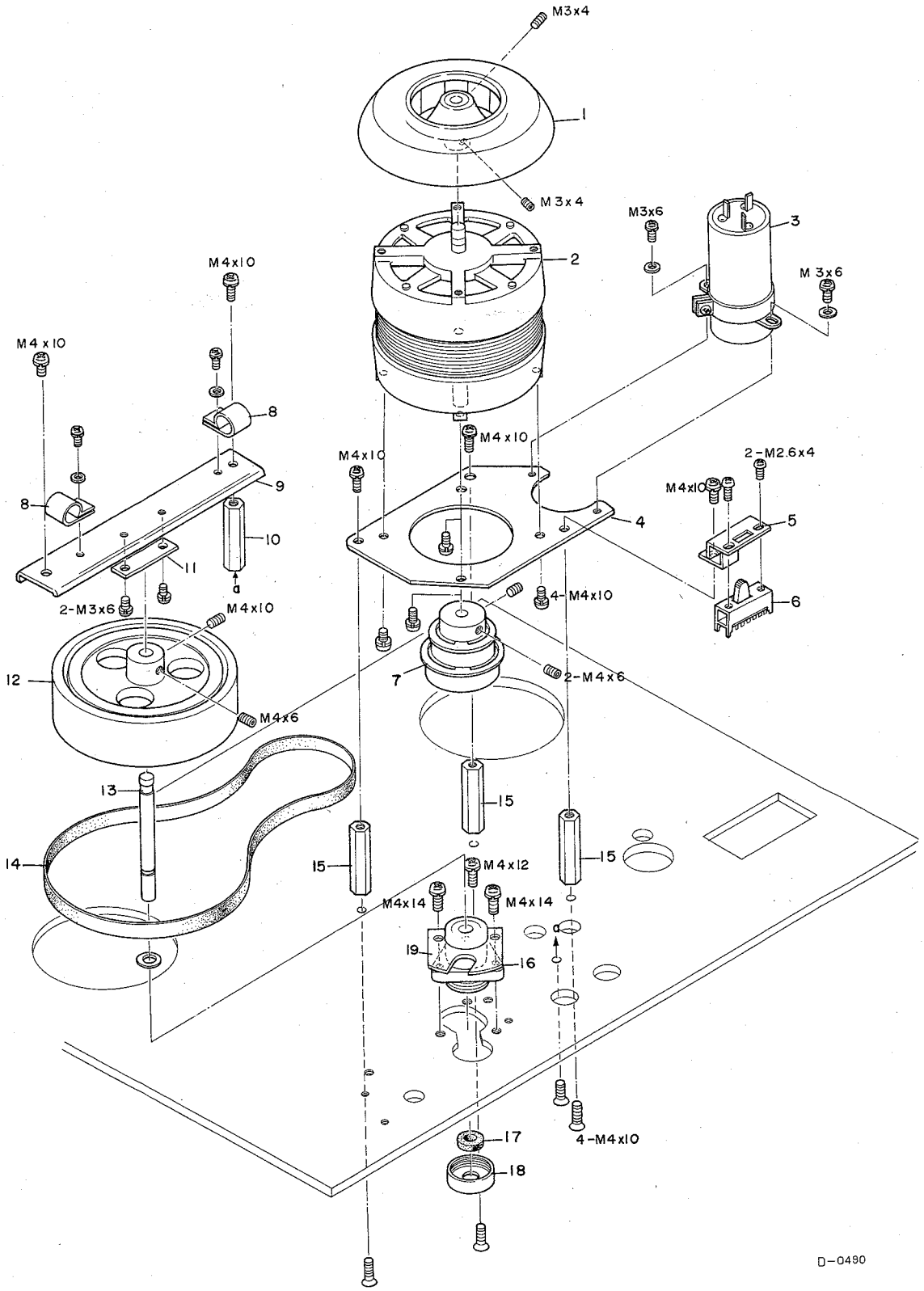
REEL MOTOR ASSY

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
3- 1	50173331	Brake Band Assy, L			
3- 2	50173481	Brake Retainer			
3- 3	50173290	Brake Drum			
3- 4	50173320	Plate, Reel Motor, L	50173501		
3- 5	50616531	Solenoid, Brake			
3- 6	50162910	Motor, Reel			
3- 7	50173391	Brake Band Assy, R			
3- 8	50173320	Plate, Reel Motor, R	50173501		
3- 9		Washer			
3-10	50163121	Reel Table Drum			
3-11	50279980	Belt, Counter			
3-12	50279970	Plate, Counter			
3-13	50585090	Counter			
3-14	50561912	Transformer, Power (DM)			
	50561922	Transformer, Power (EX) or 50561962			
3-15	50545820	Cap., Motor (5.3 + 0.7)μF × 2 250V			
3-16	50235560	Plate, Resistor			
3-17	50500500	PC Board, Rectifier			
3-18	50233930	Angle, PC Board, B			
3-19	50235550	Chassis, Reel Motor			
3-20	50161950	Stand-off, Reel Motor			
3-21	50163160	Washer, Shoulder, Lock Shaft	*E Ring 3ϕ		
3-22	50163140	Shaft Retainer			
3-23	50163170	Reel Table			
	50162851	Reel Table Mat			
3-24	50163130	Shaft, Reel Lock	*50163210		
3-25	50163090	Reel Lock			
3-26	50163150	Knob, Reel Lock			
3-27	50173490	Spacer, Brake Retainer			
3-28	50522250	Resistor, Wire Wound 150Ω 30HA			
3-29	50522240	Resistor, Wire Wound 50Ω 30HA			
3-30	50522280	Resistor, Wire Wound 250Ω 30HA			
3-31	50522190	Resistor, Wire Wound 200Ω 20HA			
3-32	50522260	Resistor, Wire Wound 20Ω 20HA			
3-33	50221610	Spring, Slip			

* Changed from SERIAL NO. 7301

EXPLODED VIEW
A-3300

CAPSTAN DRIVE ASSY

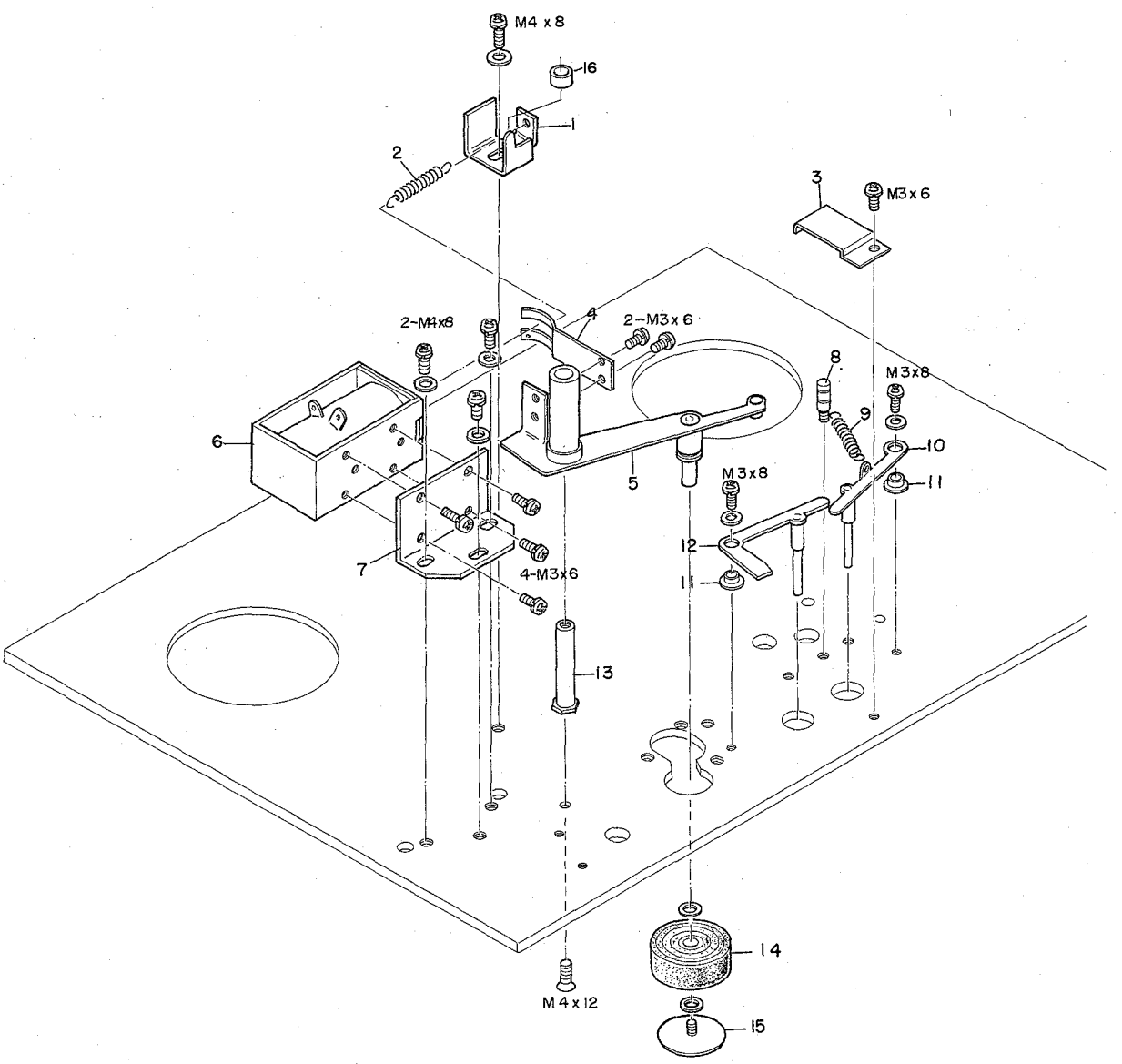


CAPSTAN DRIVE ASSY

REF NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
4- 1	50123980	Fan			
4- 2	50701343	Motor, Capstan			
4- 3	50545650	Cap., Motor (2 + 0.8)μF 250V			
4- 4	50123870	Plate, Capstan Motor			
4- 5	50276910	Bracket, Slide Switch			
4- 6	50444170	Switch, Slide			
4- 7	50124002	Pulley, Motor			
4- 8	50276280	Clamp, Wire, A			
4- 9	50277151	Angle, Thrust			
4-10	50123860	Stand-off, Flywheel			
4-11	50277230	Plate, Thrust			
4-12	50123801	Flywheel, Capstan			
4-13					
4-14	50123830	Belt, Capstan (A-3300-10, 12 only)			
	50125340	Belt, Capstan (A-3300-11 only)			
4-15	50123850	Stand-off, Capstan Motor			
4-16		Capstan Assy			
4-17	50123900	Sponge Oiler			
4-18	50123971	Cap, Dust 6ϕ (A-3300-10, 12 only)			
	50125351	Cap, Dust 12ϕ (A-3300-11 only)			
4-19	50141830	Plate, Arm			

EXPLODED VIEW
A-3300

LIFTER AND PINCH ROLLER

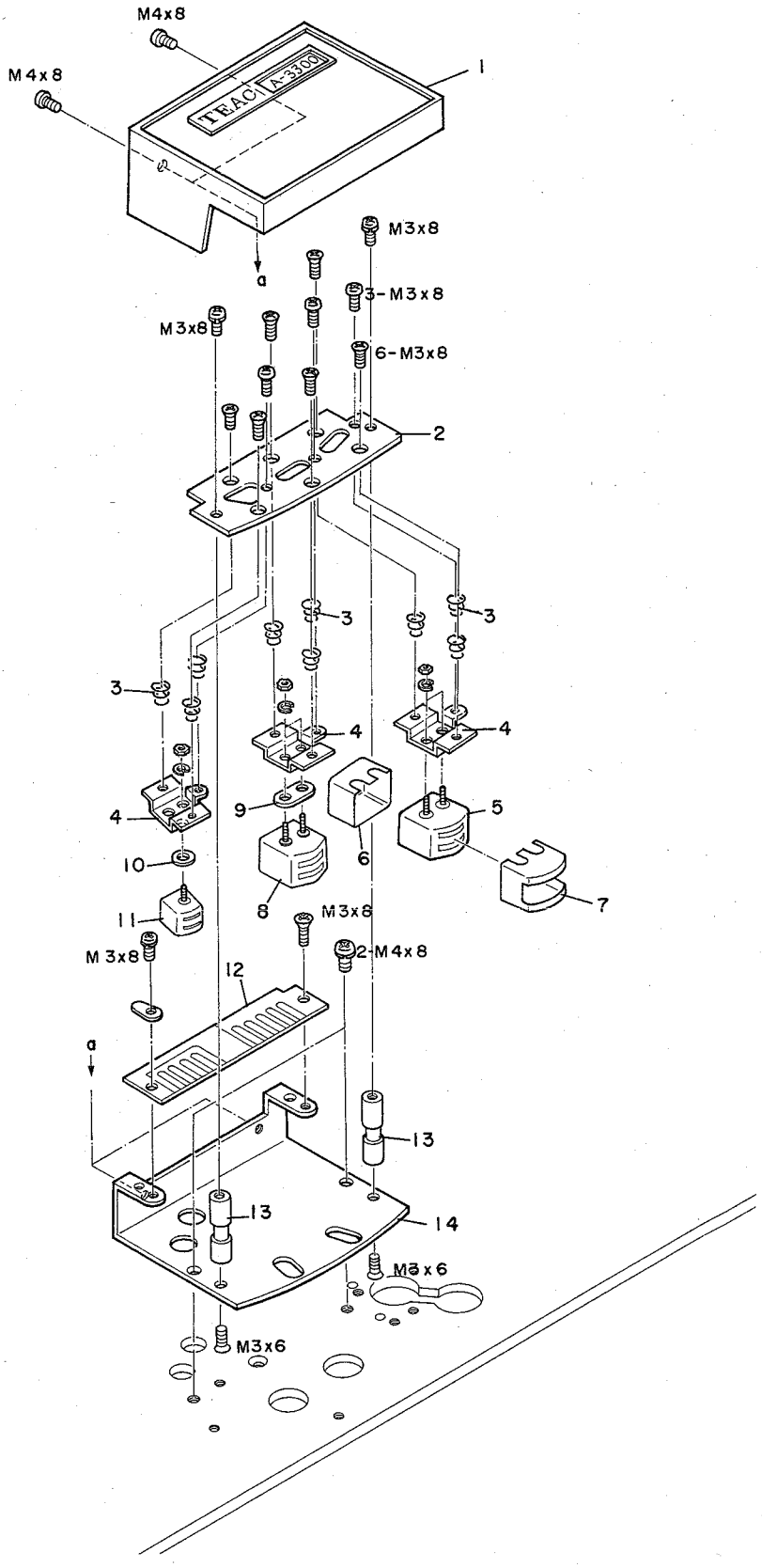


LIFTER AND PINCH ROLLER

REF NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
5- 1	50141841	Limit Stop, Pinch Roller			
5- 2	50220441	Spring			
5- 3	50152452	Plate, Lifter			
5- 4	50221151	Spring, Pressure			
5- 5	50140235	Arm, Pinch Roller, Assy			
5- 6	50616340	Solenoid, Pinch Roller			
5- 7	50277080	Plate, Solenoid			
5- 8	50123140	Pin, Lifter Spring			
5- 9	50221100	Spring, Lifter, A			
5-10	50150251	Arm, Lifter, B			
5-11	50152501	Shaft, Lifter Arm			
5-12	50150241	Arm, Lifter, A			
5-13	50141821	Shaft, Roller Arm			
5-14	50141750	Pinch Roller			
5-15	50142180	Cap, Pinch Roller			
5-16	50275690	Cushion, Rubber			

EXPLODED VIEW
A-3300

HEAD ASSY



HEAD ASSY

REF NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50130300	Head Assy(A-3300-10 only)			
	50130491	Head Assy(A-3300-11, 12 only)			
6- 1	50130251	Head Housing			
6- 2	50134400	Plate, Head Mount Base			
6- 3	50220500	Spring, Head			
6- 4	50134370	Plate, Head			
6- 5*		Head, Playback			
6- 6	50133900	Shield Case, B			
6- 7	50133891	Shield Case, A			
6- 8*		Head, Record			
6- 9	50134390	Spacer, Record Head			
6-10	50134380	Spacer, Erase Head			
6-11*		Head, Erase			
6-12	50482351	PC Board, Head			
6-13	50182672	Tape Guide			
6-14	50134350	Plate, Housing Base			

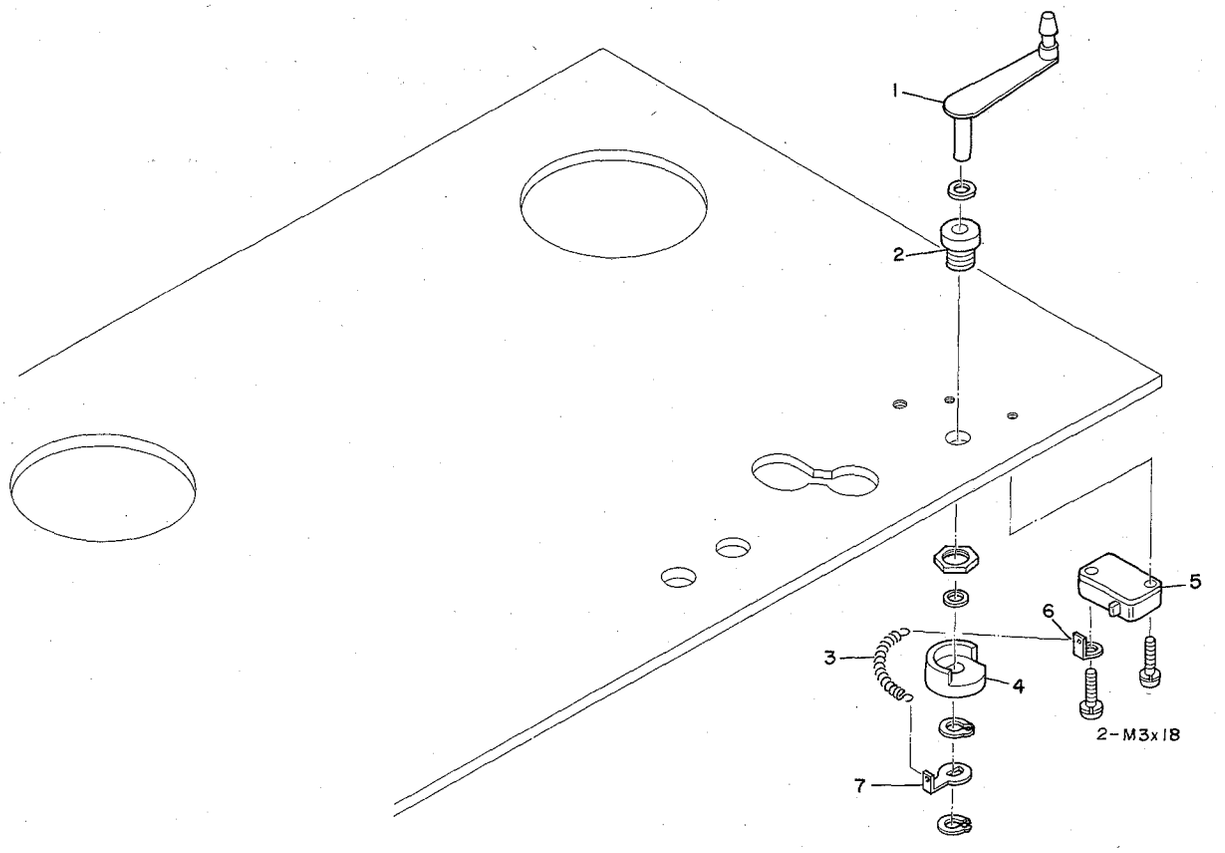
* Refer to the following chart.

HEAD CONFIGURATION

APPLICABLE ON MODEL	A-3300-10	A-3300-11	A-3300-12
TRACK/CHANNEL	4T/2-CH	2T/2-CH	2T/2-CH
TAPE SPEED	3-3/4,7-1/2 ips	7-1/2,15 ips	3-3/4,7-1/2 ips

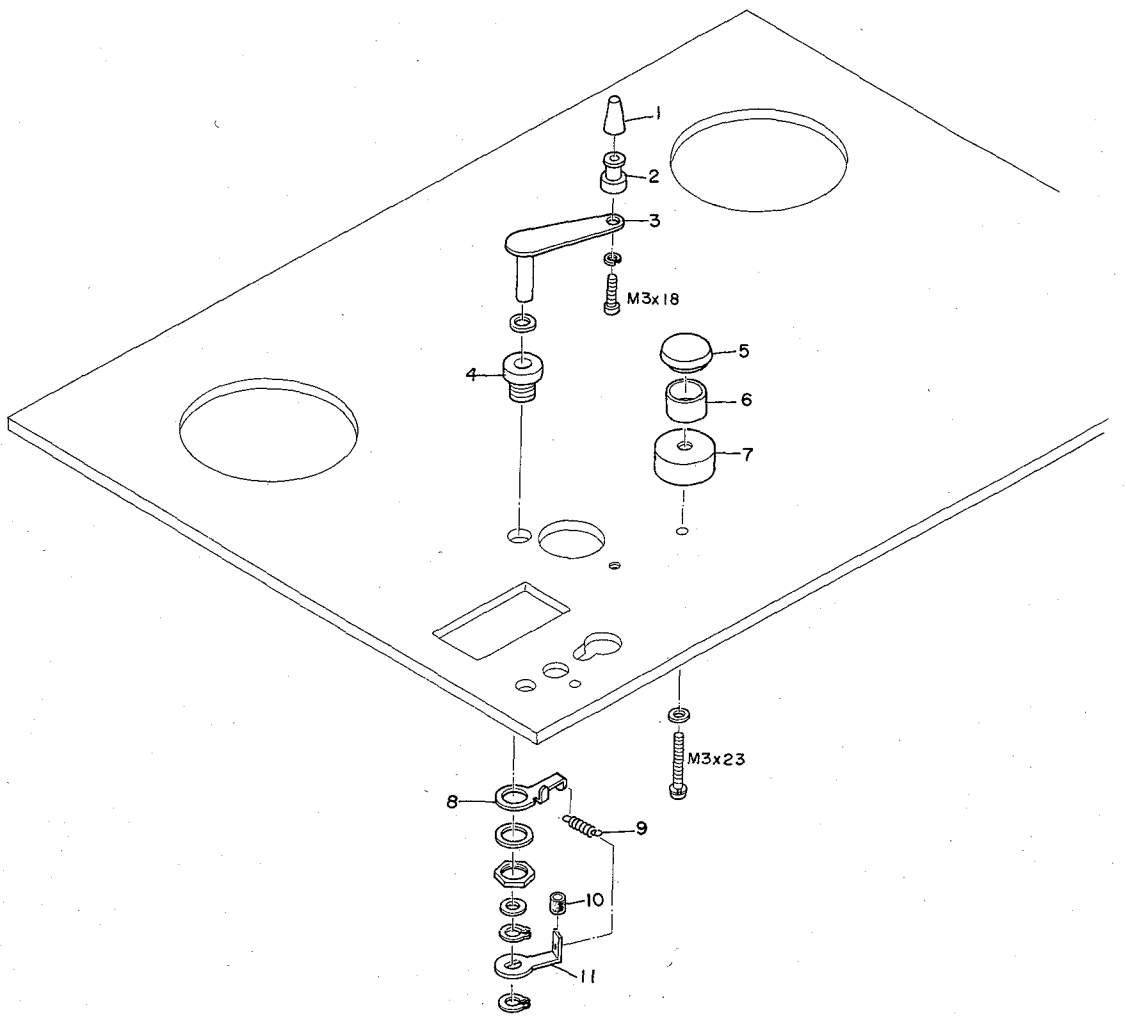
REF.NO.	HEAD	PARTS NO.	PARTS NO.	PARTS NO.
6- 5	PLAYBACK	50669040	50668050	50668050
6- 8	RECORD	50666040	50665040	50665040
6-11	ERASE	50663030	50662030	50662030

RIGHT TENSION ARM



REF NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
7-1	50180432	Tension Arm Assy, L			
7-2	50182701	Bushing, Arm, A			
7-3	50221121	Spring, Tension Arm, C			
7-4	50182990	Spring Retaining Drum			
7-5	50446180	Switch, Micro			
7-6					
7-7	50286860	Spring Hook, Right			

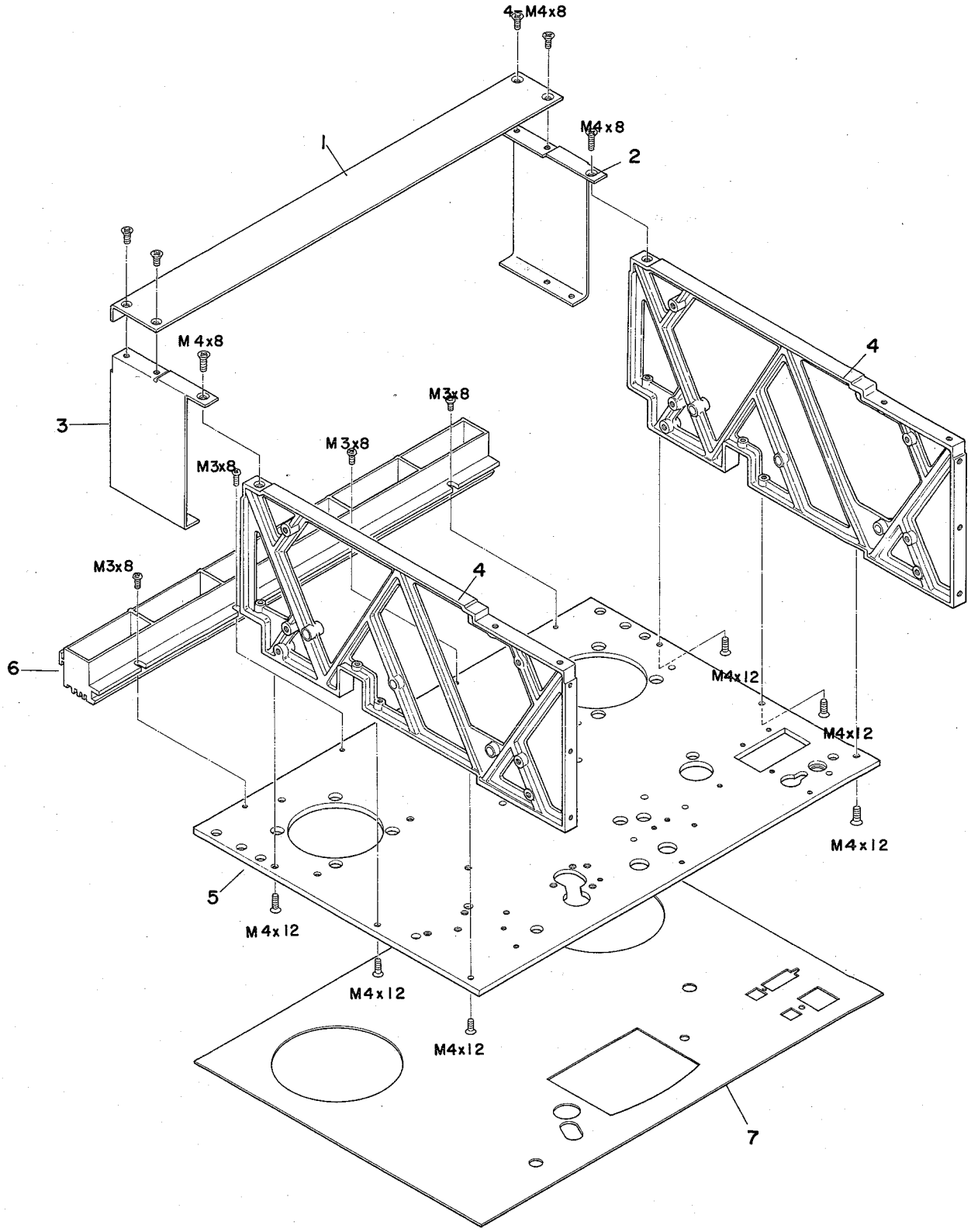
LEFT TENSION ARM



REF NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
8- 1	50134360	Cap, Tape Guide			
8- 2	50182690	Tape Guide, B			
8- 3	50182821	Tension Arm Assy, L			
8- 4	50182701	Bushing, Arm, A			
8- 5	50123910	Cap, Guide Ring			
8- 6	50123930	Guide Ring			
8- 7	50123921	Guide Ring Base			
8- 8	50276870	Spring			
8- 9	50221110	Spring, Tension Arm, B			
8-10	50276990	Collar, Rubber			
8-11	50182750	Limit Stop, Tension Arm L			

EXPLODED VIEW
A-3300

MAIN CHASSIS

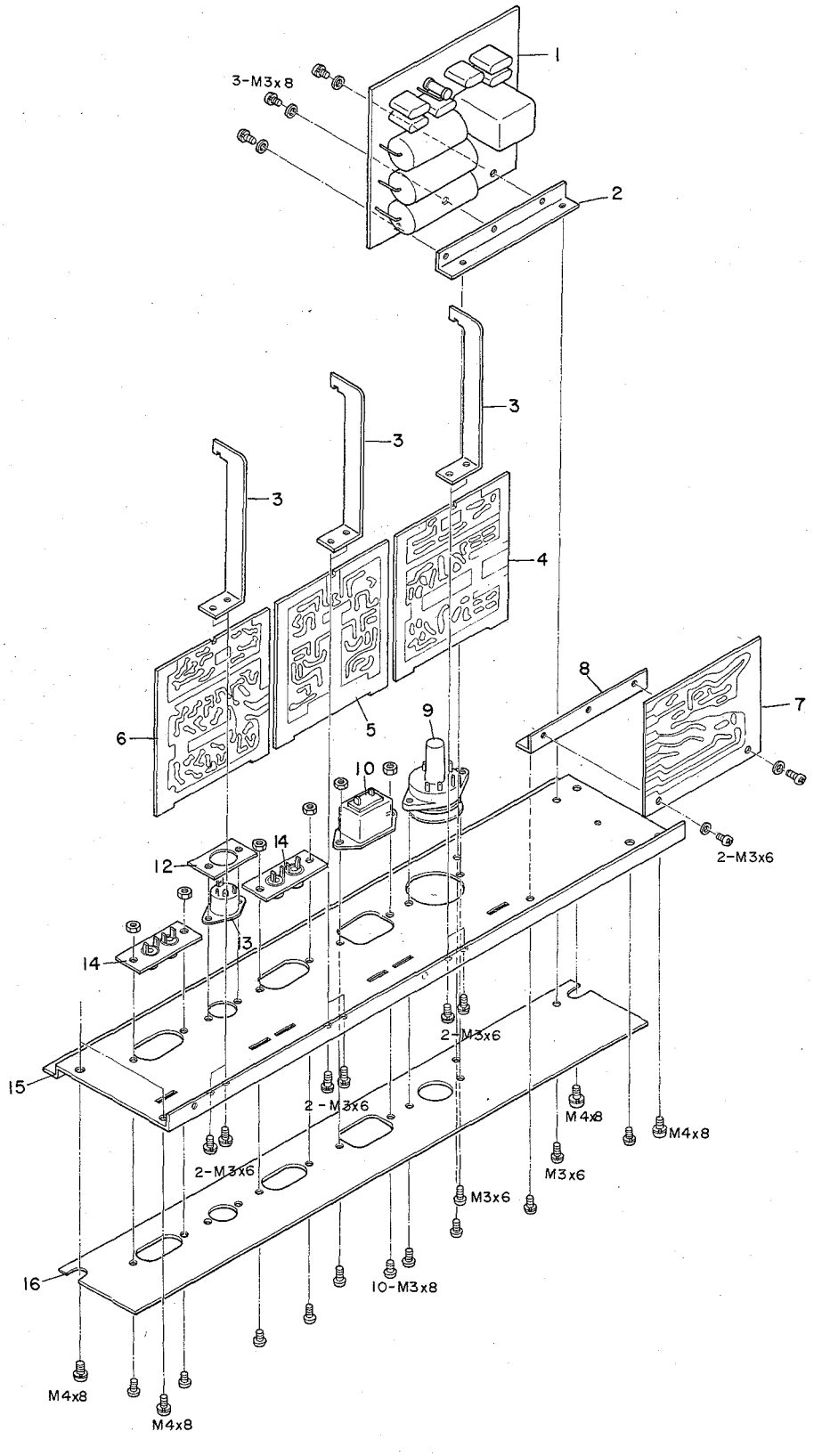


MAIN CHASSIS

REF NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
9-1	50235310	Angle, Rear Cover			
9-2	50113410	Panel, Side, Left			
9-3	50113420	Panel, Side, Right			
9-4	50112712	Frame, Side			
9-5	50113374	Panel, Chassis			
9-6	50112980	Air Vent			
9-7	50113382	Trim Panel, A (A-3300-10, 12 only)			
	50113392	Trim Panel, B (A-3300-11 only)			

EXPLODED VIEW
A-3300

REAR PANEL



REAR PANEL

REF NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
10- 1	50505170	PC Board Assy, Control Relay			
10- 2	50276840	Angle, A			
10- 3	50233760	Plate, PC Board			
10- 4	50505210	PC Board Assy, Rec and Meter Amp			
10- 5	50505150	PC Board Assy, Line and Phone Amp			
10- 6	50505160	PC Board Assy, Mic and Playback EQ Amp			
10- 7	50505140	PC Board Assy, Bias Oscillator			
10- 8	50276850	Angle, B			
10- 9	50412170	Voltage Selector, with Fuse Holder (DM, UL only)			
	50412130	Fuse Holder (TCA only)			
	50419010	Fuse Post Adapter			
10-10	50431050	Socket, AC			
10-11	50454071	Terminal, Ground			
10-12	50233530	Plate, DIN Connector			
10-13	50430010	Connector, DIN			
10-14	50434631	Jack, Pin, 2P			
10-15	50234700	Chassis, Amp	50264621		
10-16	50263104	Trim Panel, Rear			

PRINTED CIRCUIT BOARD AND PARTS LIST

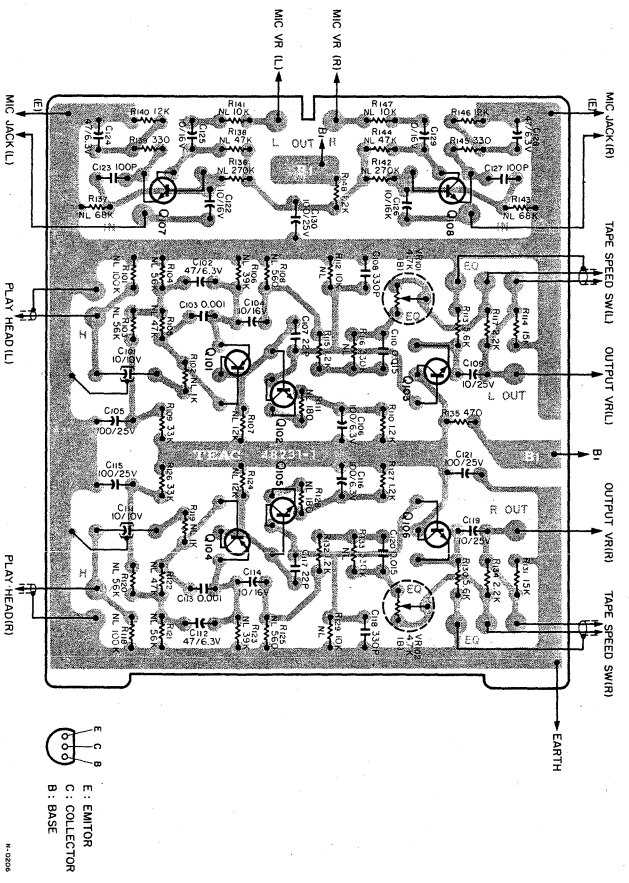
FOR **A-3300**

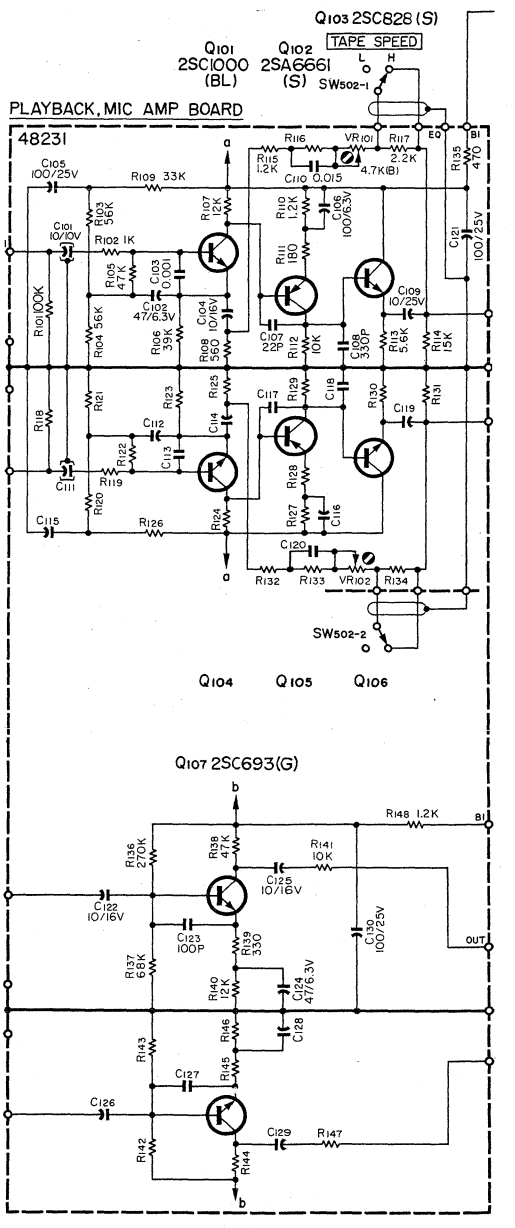
TEAC CORPORATION

MIC AND PLAYBACK EQ.AMPLIFIER

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50505160	PC Board Assy (A-3300-10,12 only)			
	50489960	PC Board Assy (A-3300-11 only)			
		SILICON TRANSISTORS			
Q101/104	50424240	2SC1000-BL (or 2SC732-BL)			
Q102/105	50424210	2SA666I-S (or 2SA494-Y)			
Q103/106	50424220	2SC828-S (or 2SC733-Y)			
Q107/108	50423870	2SC693-G (or 2SC369-BL)			
		CARBON RESISTORS			
		ALL RESISTORS IN OHMS, 10% TOLERANCE, 1/4 WATTS UNLESS OTHERWISE NOTED.			
R101/118	50515640	100k			
R102/119	50515340	1k			
R103/120	50515610	56k			
R104/121	50515610	56k			
R105/122	50515590	47k			
R106/123	50515580	39k			
R107/124	50515500	12k			
R108/125	50515310	560			
R109/126	50515570	33k			
R110/127	50515350	1.2k			
R111/128	50515250	180			
R112/129	50515490	10k			
R113/130	50515460	5.6k			
R114/131	50515510	15k			
R115/132	50515350	1.2k			
R116/133	50515770	820k (A-3300-10,12 only)			
	50515750	560k (A-3300-11 only)			
R117/134	50515410	3.3k 5% (A-3300-10,12 only)			
	50515340	1k 5% (A-3300-11 only)			
R135	50515300	470			
R136/142	50515700	270k			
R137/143	50515620	68k			
R138/144	50515590	47k			
R139/145	50515280	330			
R140/146	50515500	12k			
R141/147	50515490	10k			
R148	50515350	1.2k			
		TRIMMER RESISTOR			
VR101/102	50533460	4.7kΩ B 10ø			
		CAPACITORS			
		ALL CAPACITORS IN MICRO FARADS UNLESS OTHERWISE NOTED.			
C101/111	50546010	Tantalum 10 10V			
C102/112	50554030	Elec. 47 6.3V			
C103/113	50548320	Mylar 0.001 50V			
C104/114	50554050	Elec. 10 16V			
C105/115	50554170	Elec. 100 25V			
C106/116	50554230	Elec. 100 6.3V			
C107/117	50543330	High Q 22p 50V			
C108/118	50543340	High Q 330p 50V			
C109/119	50554040	Elec. 10 25V			
C110/120	50548420	Mylar 0.015 50V			
C121	50554170	Elec. 100 25V			
C122/126	50554050	Elec. 10 16V			
C123/127	50543400	High Q 100p 50V			
C124/128	50554030	Elec. 47 6.3V			
C125/129	50554050	Elec. 10 16V			
C130	50554170	Elec. 100 25V			
C131/141	50548420	Mylar 0.015 50V			

MIC AND PLAYBACK EQ.AMPLIFIER

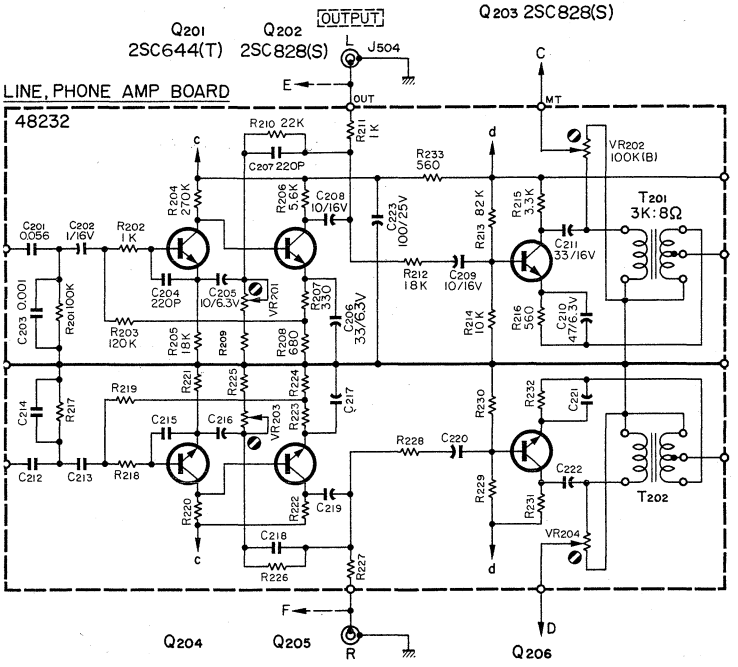


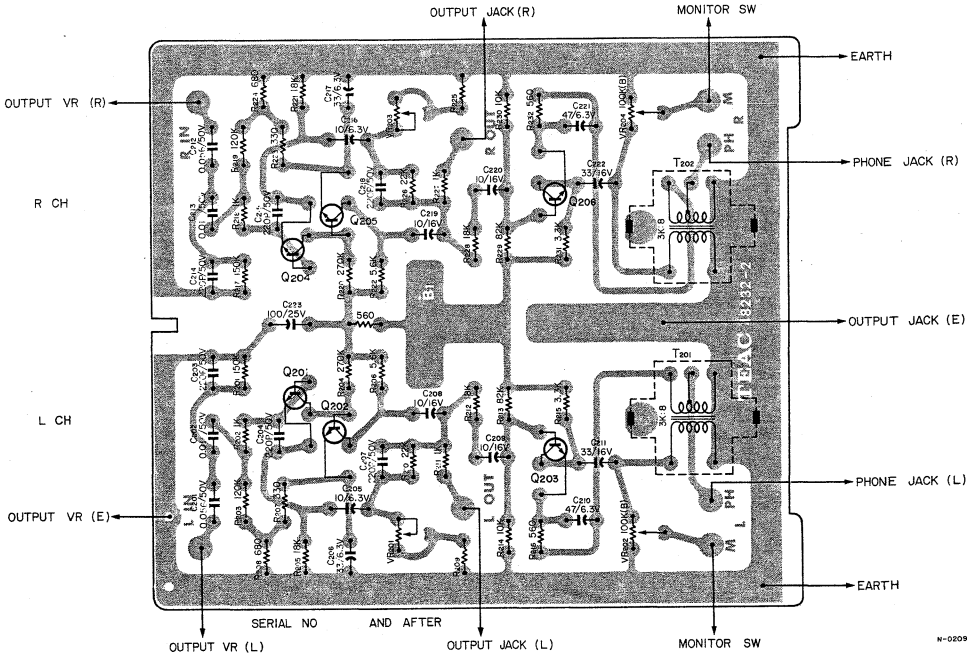


LINE OUT AND PHONE AMPLIFIER

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50505150	PC Board Assy (A-3300-10 only)			
	50489350	PC Board Assy (A-3300-11,12 only)			
		SILICON TRANSISTORS			
Q201/204	50423770	2SC644-T (or 2SC369-BL)			
Q202/205	50424220	2SC828-S (or 2SC372-Y)			
Q203/206	50424220	2SC828-S (or 2SC372-Y)			
		CARBON RESISTORS			
		ALL RESISTORS IN OHMS, 10% TOLERANCE, 1/4 WATTS UNLESS OTHERWISE NOTED.			
R201/217	50515640	100k			
R202/218	50515340	1k			
R203/219	50515650	120k			
R204/220	50515700	270k			
R205/221	50515520	18k			
R206/222	50515460	5.6k			
R207/223	50515280	330			
R208/224	50515320	680			
R209/225	50515280	330 (A-3300-10 only)			
	50515320	680 (A-3300-11,12 only)			
R210/226	50515540	22k			
R211/227	50515340	1k			
R212/228	50515520	18k			
R213/229	50515630	82k			
R214/230	50515490	10k			
R215/231	50515410	3.3k			
R216/232	50515310	560			
R233	50515310	560			
		TRIMMER RESISTORS			
VR201/203	50533450	1.5kΩ B 10φ (A-3300-10 only)			
	50533640	2.2kΩ B 10φ (A-3300-11,12 only)			
VR202/204	50533490	100kΩ B 10φ			
		CAPACITORS			
		ALL CAPACITORS IN MICRO FARADS UNLESS OTHERWISE NOTED.			
C201/212	50548460	Mylar 0.056 50V			
C202/213	50557030	Elec. 1 16V			
C203/214	50548320	Mylar 0.001 150V			
C204/215	50543420	High Q 220p 50V			
C205/216	50554250	Elec. 10 6.3V			
C206/217	50554240	Elec. 33 6.3V			
C207/218	50543420	High Q 220p 50V			
C208/219	50554050	Elec. 10 16V			
C209/220	50554050	Elec. 10 16V			
C210/221	50554030	Elec. 47 6.3V			
C211/222	50554260	Elec. 33 16V			
C223	50554170	Elec. 100 25V			
		TRANSFORMER			
T201/202	50562140	Transformer, Output 3kΩ:8Ω			

LINE OUT AND PHONE AMPLIFIER

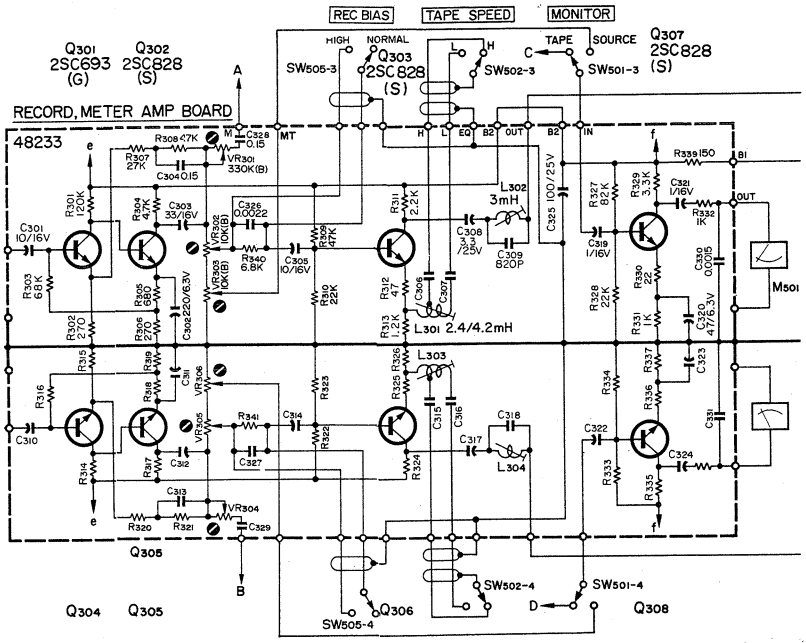


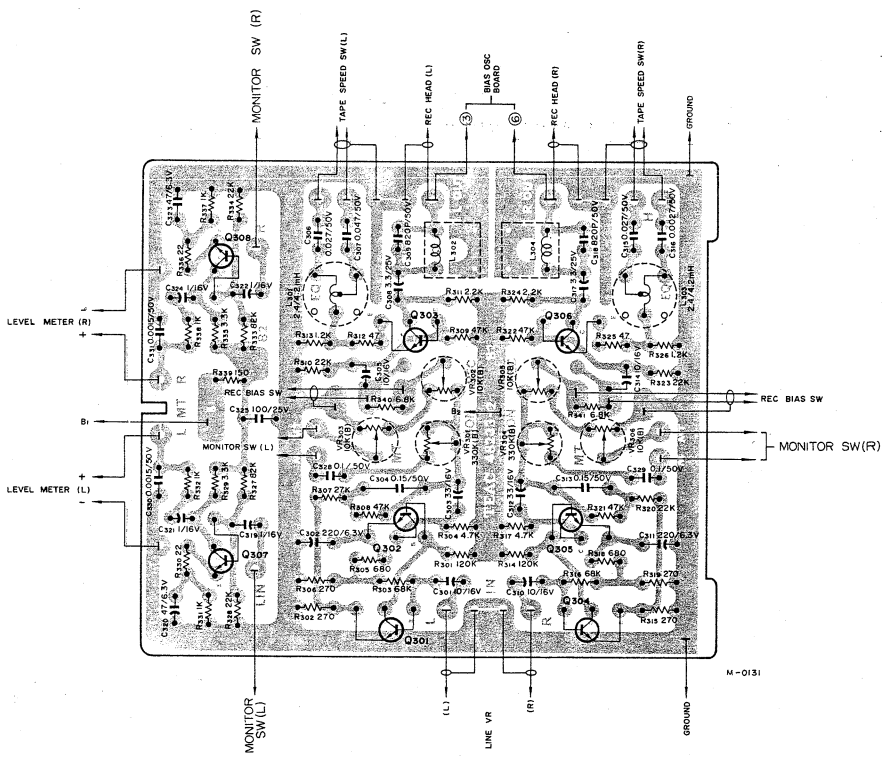


METER AND REC.EQ.AMPLIFIER

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50505210	PC Board Assy (A-3300-10,12 only)			
	50505240	PC Board Assy (A-3300-11 only)			
		SILICON TRANSISTORS			
Q301/304	50423870	2SC693-G (or 2SC369-BL)			
Q302/305	50424220	2SC828-S (or 2SC372-Y)			
Q303/306	50424220	2SC828-S (or 2SC372-Y)			
Q307/308	50424220	2SC828-S (or 2SC372-Y)			
		CARBON RESISTORS			
		ALL RESISTORS IN OHM, 10% TOLERANCE 1/4 WATT UNLESS OTHERWISE NOTED.			
R301/314	50515650	120k			
R302/315	50515270	270			
R303/316	50515620	68k			
R304/317	50515460	4.7k			
R305/318	50515320	680			
R306/319	50515270	270			
R307/320	50515540	22k			
R308/321	50515590	47k			
R309/322	50515590	47k			
R310/323	50515540	22k			
R311/324	50515380	2.2k			
R312/325	50515170	47			
R313/326	50515350	1.2k			
R327/333	50515630	82k			
R328/334	50515540	22k			
R329/335	50515410	3.3k			
R330/336	50515170	47			
R331/337	50515340	1k			
R332/338	50515340	1k			
R339	50515240	150			
R340·341	50515490	6.8k			
		TRIMMER RESISTORS			
VR301/304	50533670	330kΩ B 10φ			
VR302/305	50533480	10kΩ B 10φ			
VR303/306	50533480	10kΩ B 10φ			
		CAPACITORS			
		ALL CAPACITORS IN MICRO FARADS UNLESS OTHERWISE NOTED.			
C301/310	50554050	Elec. 10 16V			
C302/311	50554330	Elec. 220 6.3V			
C303/312	50554260	Elec. 33 16V			
C304/313	50548310	Mylar 0.15 50V (A-3300-10,12 only)			
	50549550	Mylar 0.22 50V (A-3300-11 only)			
C305/314	50554050	Elec. 10 16V			
C306/315	50549460	Mylar 0.01 50V (A-3300-11 only)			
	50548330	Mylar 0.027 50V(A-3300-10,12 only)			
C307/316	50548290	Mylar 0.022 50V(A-3300-11 only)			
	50548270	Mylar 0.047 50V(A-3300-10,12 only)			
C308/317	50554220	Elec. 3.3 25V			
C309/318	50543440	Polyst. 820p 50V			
C319/322	50557030	Elec. 1 16V			
C320/323	50554030	Elec. 47 6.3V			
C321/324	50557030	Elec. 1 16V			
C325	50554170	Elec. 100 25V			
C328/329	50548040	Mylar 0.1 50V			
C330/331	50548120	Mylar 0.0015 50V			

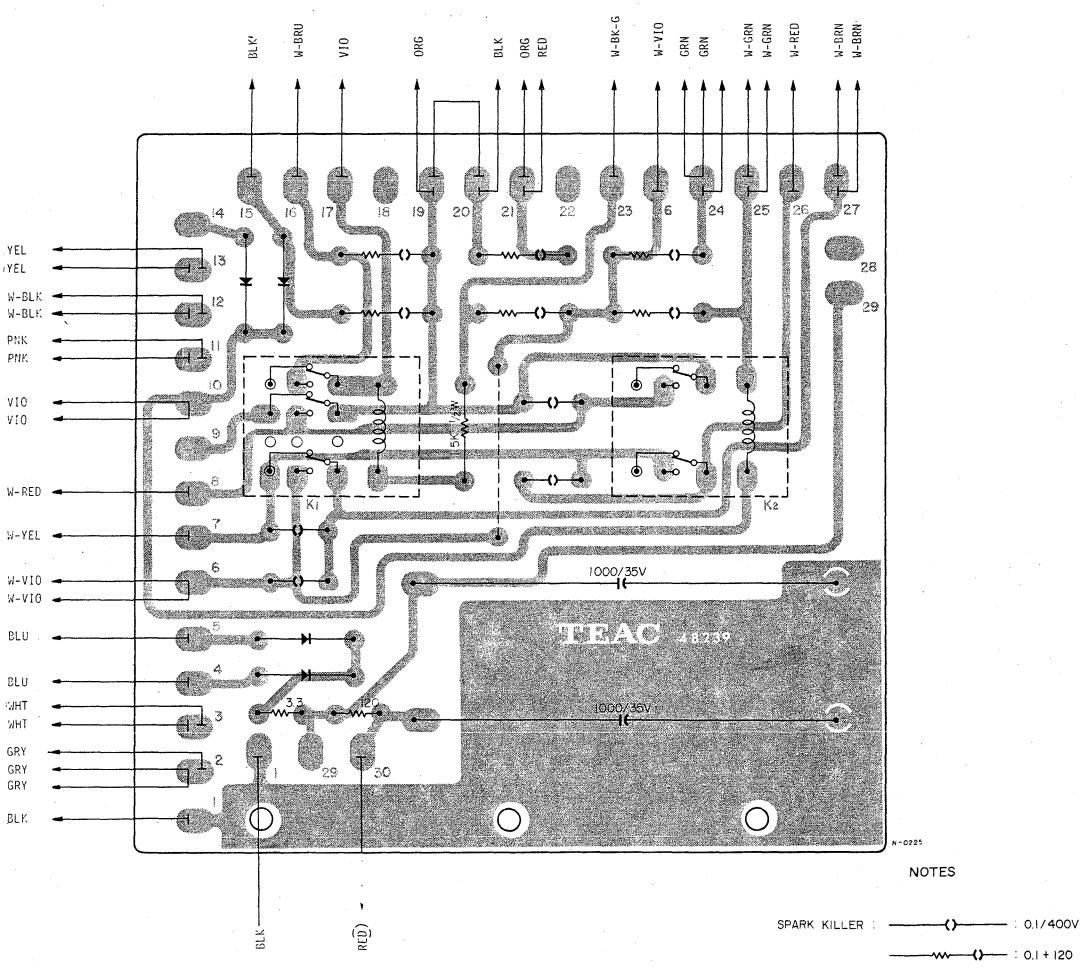
METER AND REC.EQ.AMPLIFIER





PC BOARD
A-3300

CONTROL RELAY

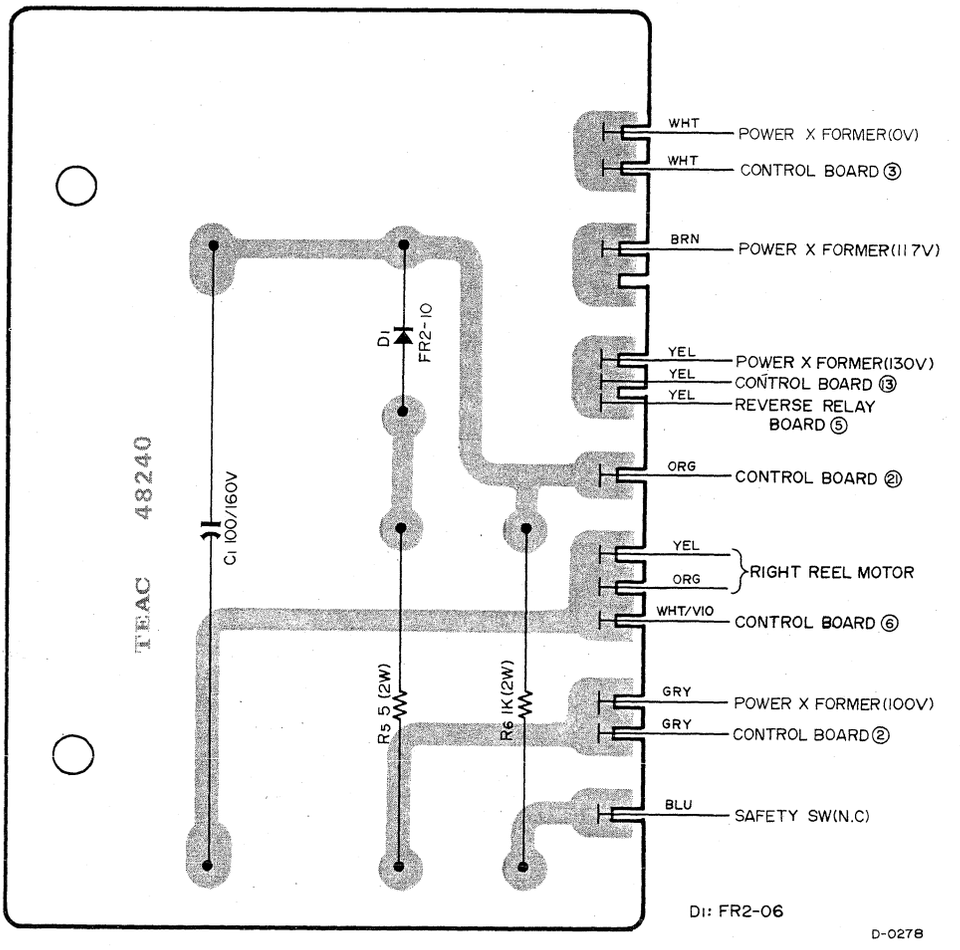


NOTES

SPARK KILLER : —◯— : 0.1/400V

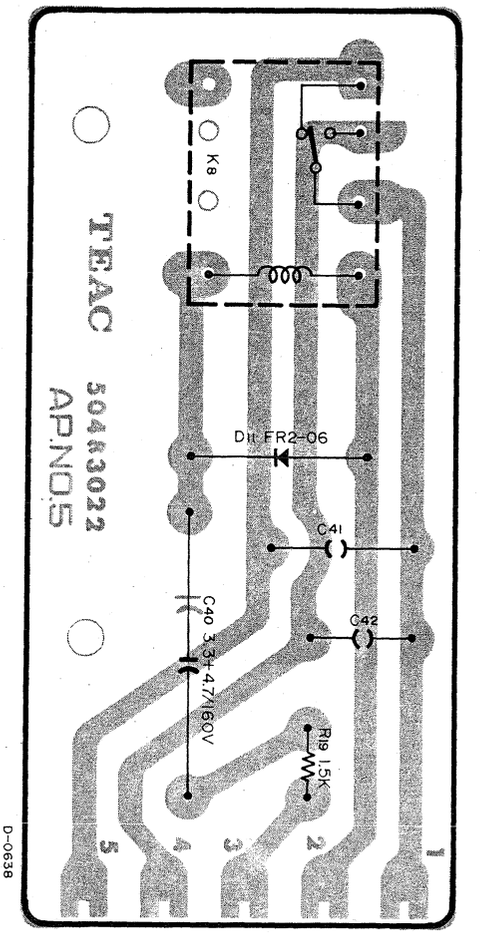
—∿—◯— : 0.1 + 120

RECTIFIER



CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50500500	PC Board Assy			
D1	50422380	Diode FR2-10			
C1	50555250	Cap., Elec. 100μF 160V			
R5	50526030	Resistor, Wire Wound 5Ω 2W			
R6	50578820	Resistor, Carbon 1kΩ 2W			
	50233930	Angle, PC Board, B			

START MOTOR



CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50489970	PC Board Assy (A-3300-10,A-3340)			
K8	50610750	Relay, 2T MY2-0 DC 100V			
R19	50574860	Resistor, Carbon 1.5kΩ 1/2W			
D11	50422360	Diode, Silicon FR2-06			
C40	50555350	Cap., Elec. 4.7μF 160V			
	50555360	Cap., Elec. 3.3μF 160V			
C41·42	50548390	Cap., Mylar 0.1μF 400V			
	50330230	Angle, PC Board			

EXPLODED VIEW AND PARTS LIST

A-3340

REPLACEMENT INFORMATION

Replacement parts are available through your nearest TEAC dealer or directly from the TEAC office.
Changes are constantly being made to make TEAC products better and more reliable.
Therefore, when ordering parts, always include the following information:

MODEL *SERIAL NO.* *REF.NO.* *PARTS NO.* *DESCRIPTION*

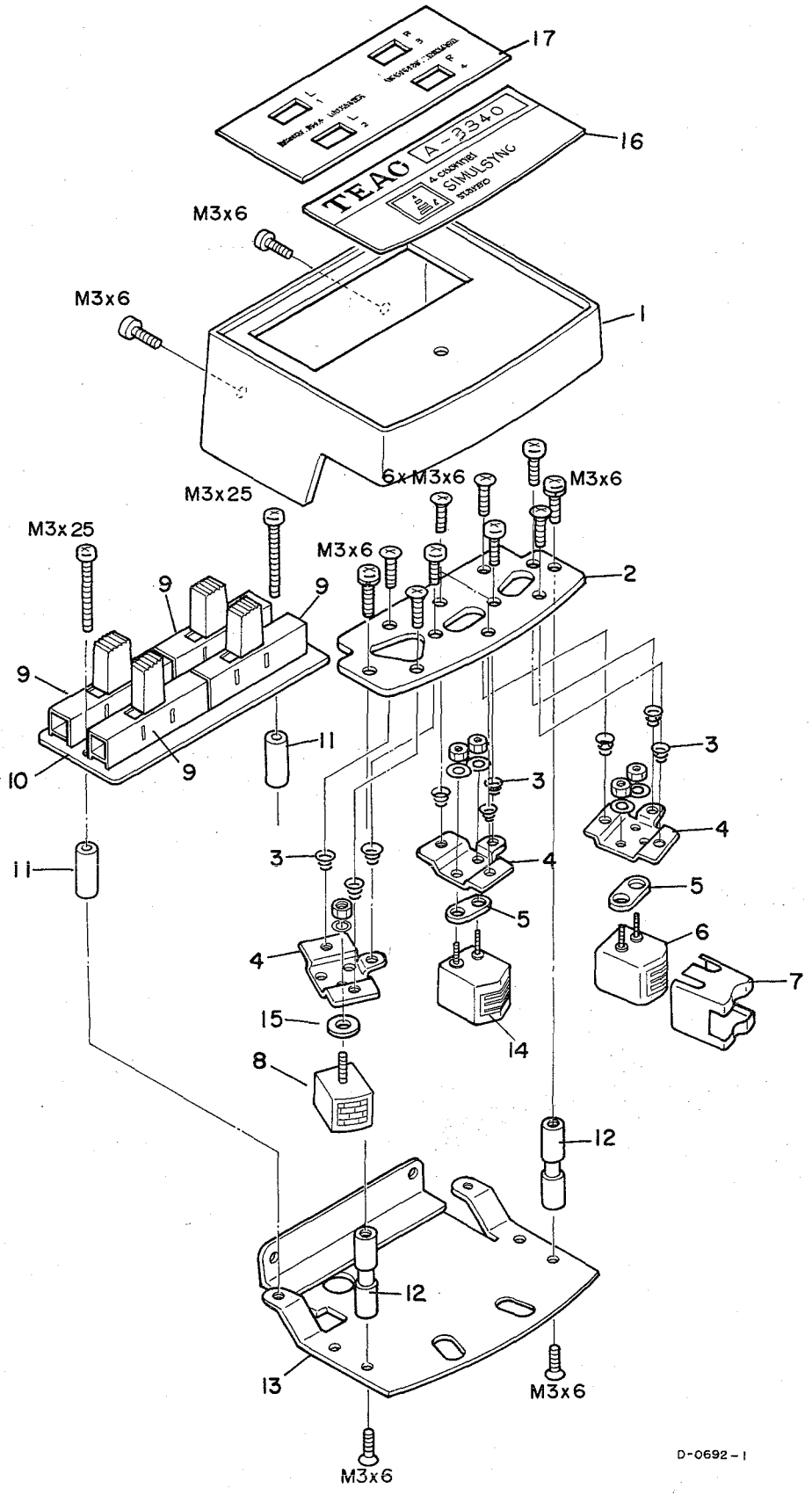
NOTE

Since the basic design of the A-3340 is highly similar to that of the A-3300 (except for Head Assy and Preamplifier Chassis Section in this exploded view), please refer to diagrams of the A-3300.

TEAC CORPORATION

EXPLODED VIEW
A-3340

HEAD ASSY

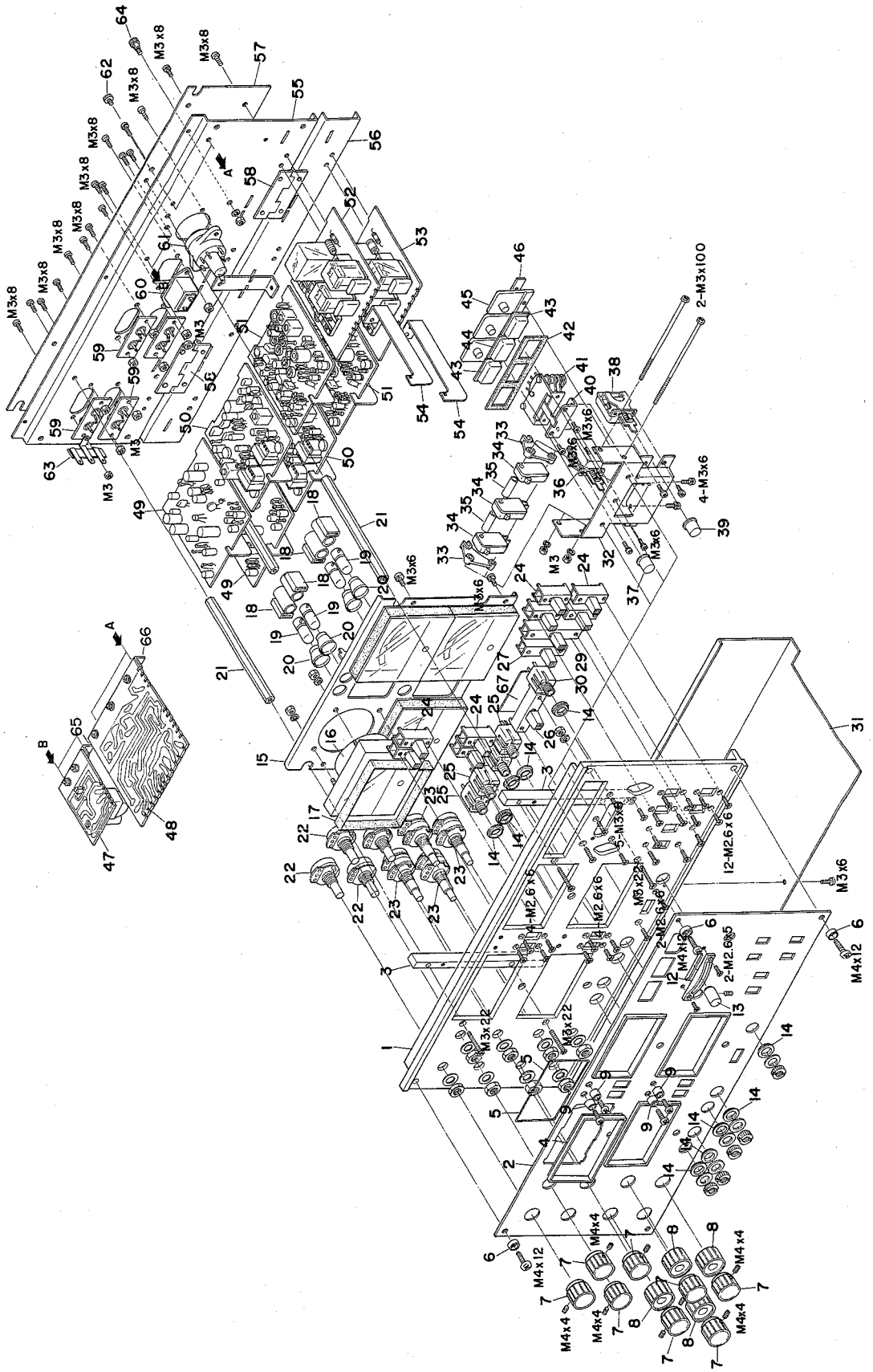


HEAD ASSY

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
	50136380	Head Assy			
1- 1	50136290	Head Housing			
1- 2	50134400	Plate, Head Mount Base			
1- 3	50220500	Spring, Head			
1- 4	50134370	Plate, Head			
1- 5	50134390	Spacer, Record Head			
1- 6	50664810	Head, Playback			
1- 7	50675650	Shield Case, A (Front)			
1- 8	50664110	Head, Erase			
1- 9	50444480	Switch, Slide			
1-10	50483140	PC Board, Simul-Sync			
1-11	50136310	Stand-off, Slide Switch			
1-12	50182672	Tape Guide			
1-13	50136260	Plate, Housing Base			
1-14	50664210	Head, Record			

EXPLODED VIEW
A-3340

PREAMPLIFIER CHASSIS



PREAMPLIFIER CHASSIS

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2- 1	50236320	Panel, Front			
2- 2	50236310	Trim Panel, Amp			
2- 3	50236420	VU Meter Retainer			
2- 4	50236500	Escutcheon, VU Meter			
2- 5	50236510	Clamp, Meter Escutcheon			
2- 6	50277111	Washer, Trim			
2- 7	50253390	Knob, Upper			
2- 8	50253400	Knob, Lower			
2- 9	50236430	Escutcheon, Record Lamp			
2-12	50449900	Cover, Lever Switch			
2-13	50253470	Knob, Control SW, D			
2-14	50272620	Washer, Insulator			
2-15	50236340	Plate, VU Meter			
2-16	50581380	VU Meter			
2-17	50939110	VU Meter Band			
2-18	50415250	Socket, Record Lamp			
2-19	50414510	Lamp, Record 8V			
2-20	50419070	Cover, Record Lamp			
2-21	50236490	Stand-off, Amp Chassis			
2-22	50535140	Potentiometer, Single 10kΩ			
2-23	50535150	Potentiometer, Dual (Outer Shaft 100kΩ, Inner 10kΩ)			
2-24	50440000	Switch, Slide			
2-25	50430240	Jack, Phone, Single			
2-26	50444470	Switch, Slide			
2-27	50444450	Switch, Slide			
2-29	50444460	Switch, Slide			
2-30	50432450	Jack, Phone, 3 cond			
2-31	50288190	Cover, Bottom			
2-32	50277782	Plate, Control Base			
2-33	50277540	Spacer, Control SW, A			
2-34	50446090	Switch, Micro			
2-35	50241120	Base Plate Holder			
2-36	50443410	Switch, Push (Non Lock)			
2-37	50253130	Push Button, B (Red)			
2-38	50443210	Switch, Push			
2-39	50253120	Push Button, A (Black)			
2-40	50277771	Plate, Lever Switch			
2-41	50442350	Switch, Rotary (Lever Type)			
2-42	50277160	Rubber Protector			
2-43	50253210	Push Button, Operate			
2-44	50253200	Push Button, Stop			
2-45	50253113	Push Button Base			
2-46	50277010	Plate			
2-47	50490290	PC Board Assy, Bias Oscillator			
2-48	50490230	PC Board Assy, Control Relay			
2-49	50490270	PC Board Assy, Mic and Playback EQ Amp			
2-50	50490180	PC Board Assy, Line and Phone Amp			

PREAMPLIFIER CHASSIS (CONTINUED)

REF. NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2-51	50490240	PC Board Assy, Rec and Meter Amp			
2-52	50490220	PC Board Assy, Bias Adjust A			
2-53	50490210	PC Board Assy, Bias Adjust B			
2-54	50233760	Plate, PC Board			
2-55	50236440	Chassis, Amp, A			
2-56	50236450	Chassis, Amp, B			
2-57	50236330	Trim Panel, Rear			
2-58	50236480	Hinge			
2-59	50434631	Jack, Pin, 2P			
2-60	50431050	Socket, AC			
2-61	50412143	Voltage Selector, with Fuse Holder			
2-62	50236470	Screw			
2-63	50452060	Terminal Strip, 1L-2P			
2-64	50454071	Ground Terminal			
2-65	50236280	Angle, Bias Oscillator			
2-66	50330950	Angle, Control Relay Assy			
2-67	50490190	PC Board Assy, Headphone SW			

PRINTED CIRCUIT BOARD AND PARTS LIST

A-3340

REPLACEMENT INFORMATION

Replacement parts are available through your nearest TEAC dealer or directly from the TEAC office.
Changes are constantly being made to make TEAC products better and more reliable.
Therefore, when ordering parts, always include the following information:

MODEL *SERIAL NO.* *REF.NO.* *PARTS NO.* *DESCRIPTION*

NOTE

Since the following PC Board Assy is identical to that of the A-3300, please refer to PRINTED CIRCUIT BOARD AND PARTS LIST for the A-3300.

- RECTIFIER
- MOTOR STARTING TORQUE NETWORK

TEAC CORPORATION

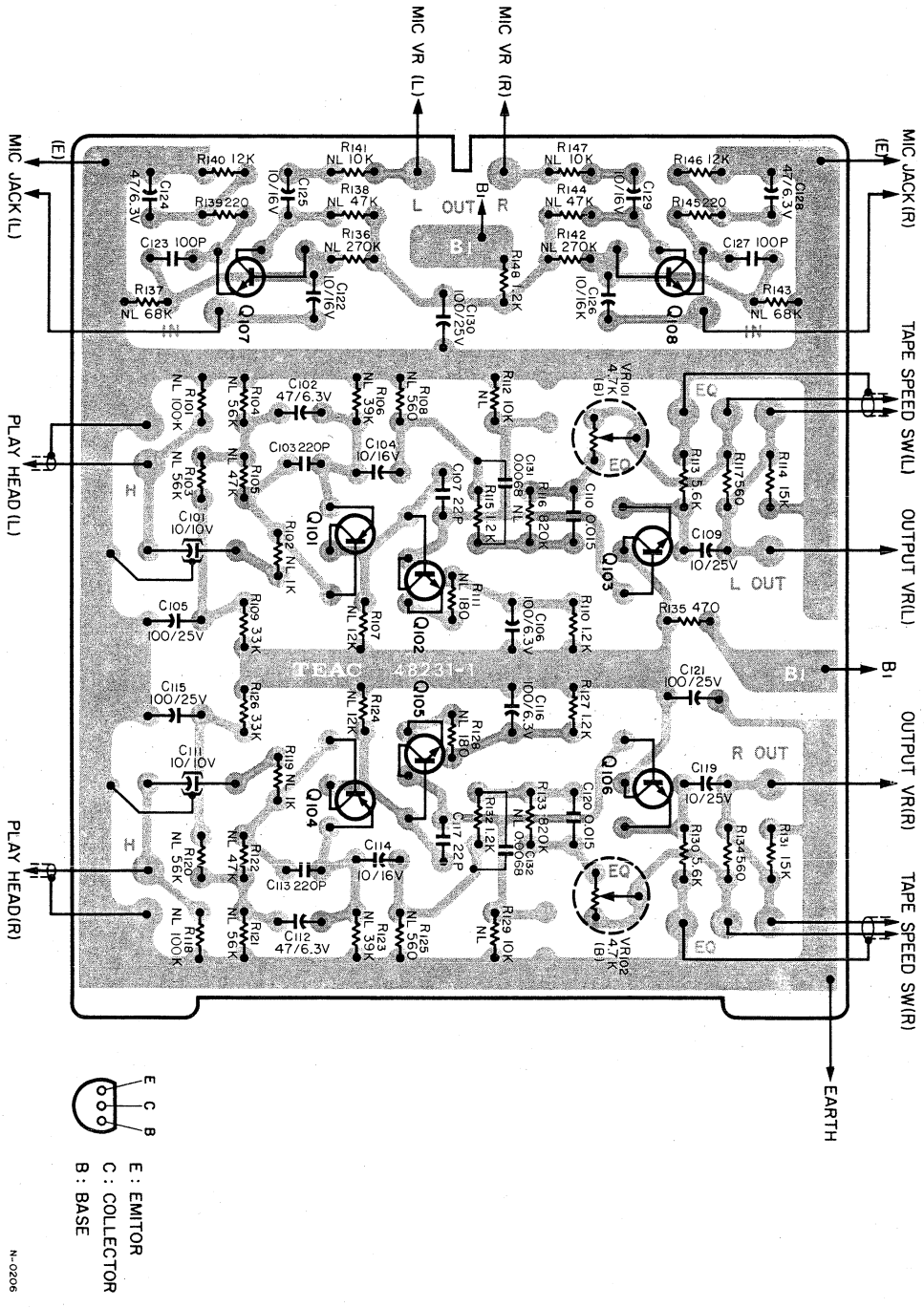
PARTS LIST
A-3340

MIC AND PLAYBACK EQ. AMPLIFIER

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2-49	50490270	PC Board Assy			
		SILICON TRANSISTORS			
Q101/104	50424340	2SC1000-BL			
Q102/105	50423650	2SA494-Y			
Q103/106	50423830	2SC536-F			
Q107/108	50423870	2SC693-G			
		CARBON RESISTORS			
		ALL RESISTORS IN OHMS, 10% TOLERANCE, 1/4 WATTS UNLESS OTHERWISE NOTED.			
R101/118	50515640	100k			
R102/119	50515340	1k			
R103/120	50515610	56k			
R104/121	50515610	56k			
R105/122	50515590	47k			
R106/123	50515580	39k			
R107/124	50515500	12k			
R108/125	50515310	560			
R109/126	50515570	33k			
R110/127	50515350	1.2k			
R111/128	50515250	180			
R112/129	50515490	10k			
R113/130	50515460	5.6k			
R114/131	50515510	15k			
R115/132	50515350	1.2k			
R116/133	50515770	820k			
R117/134	50515340	1k	50515310 560		
R135	50515300	470			
R136/142	50515700	270k			
R137/143	50515620	68k			
R138/144	50515590	47k			
R139/145	50515280	330	50515260 220		
R140/146	50515500	12k			
R141/147	50515490	10k			
R148	50515350	1.2k			
		TRIMMER RESISTOR			
VR101/102	50533460	4.7kΩ B 10φ			
		CAPACITORS			
		ALL CAPACITORS IN MICRO FARADS UNLESS OTHERWISE NOTED.			
C101/111	50546190	Tantalum 10 10V			
C102/112	50554030	Elec. 47 6.3V			
C103/113	50543420	High Q 220pF 50V			
C104/114	50554050	Elec. 10 16V			
C105/115	50554170	Elec. 100 25V			
C106/116	50554230	Elec. 100 6.3V			
C107/117	50543330	High Q 22p 50V			
C109/119	50554040	Elec. 10 25V			
C110/120	50548420	Mylar 0.015 50V			
C121/130	50554170	Elec. 100 25V			
C122/126	50554050	Elec. 10 16V			
C123/127	50543400	High Q 100p 50V			
C124/128	50554030	Elec. 47 6.3V			
C125/129	50554050	Elec. 10 16V			
C131/132	50549440	Mylar 0.0068 50V			

PC BOARD
A-3340

MIC AND PLAYBACK EQ. AMPLIFIER

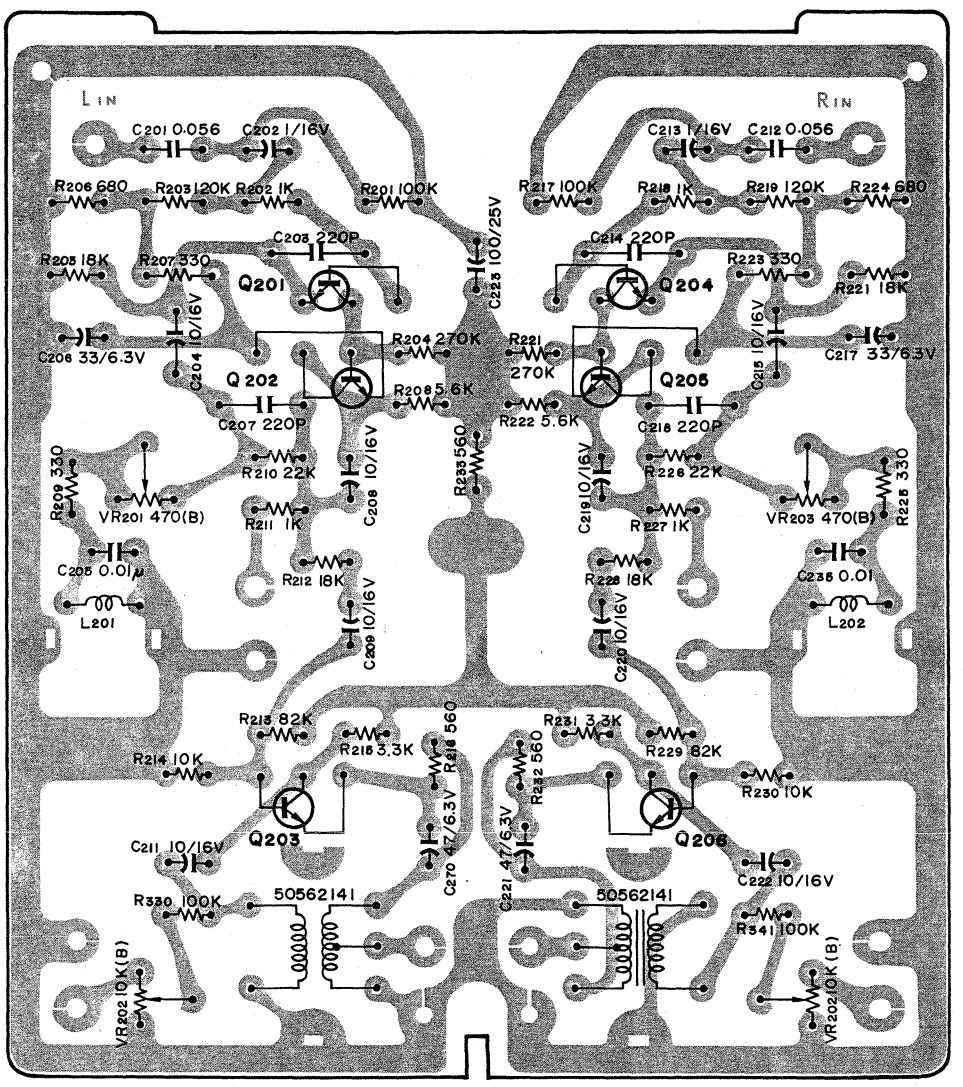


LINE OUT AND PHONE AMPLIFIER

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2-50	50490181	PC Board Assy			
		SILICON TRANSISTORS			
Q201/204	50423300	2SC693-F			
Q202/205	50423310	2SC536-E			
Q203/206	50423310	2SC536-E			
		CARBON RESISTORS			
		ALL RESISTORS IN OHMS, 10% TOLERANCE, 1/4 WATTS UNLESS OTHERWISE NOTED.			
R201/217	50515640	100k			
R202/218	50515340	1k			
R203/219	50515650	120k			
R204/220	50515700	270k			
R205/221	50515520	18k			
R206/222	50515460	5.6k			
R207/223	50515280	330			
R208/224	50515320	680			
R209/225	50515280	330			
R210/226	50515540	22k			
R211/227	50515340	1k			
R212/228	50515520	18k			
R213/229	50515630	82k			
R214/230	50515490	10k			
R215/231	50515410	3.3k			
R216/232	50515310	560			
R233	50515310	560			
R234	50515640	100k			
		TRIMMER RESISTORS			
VR201/203	50533440	470Ω B 10φ	50533500 1kΩ B		
VR202/204	50533480	10kΩ B 10φ			
		CAPACITORS			
		ALL CAPACITORS IN MICRO FARADS UNLESS OTHERWISE NOTED.			
C201/212	50548460	Mylar 0.056 50V			
C202/213	50557030	Elec. 1 16V			
C204/215	50543420	High Q 220p 50V			
C205/216	50548020	Mylar 0.01 50V			
C206/217	50554240	Elec. 33 6.3V			
C207/218	50543420	High Q 220p 50V			
C208/219	50554050	Elec. 10 16V			
C209/220	50554050	Elec. 10 16V			
C210/221	50554030	Elec. 47 6.3V			
C211/222	50554260	Elec. 33 16V			
C223	50554170	Elec. 100 25V			
		MISCELLANEOUS			
T201/202	50562140	Transformer, Output 3kΩ:8Ω			
L201/202	50566640	Coil, Choke 220μH			

PC BOARD
A-3340

LINE OUT AND PHONE AMPLIFIER

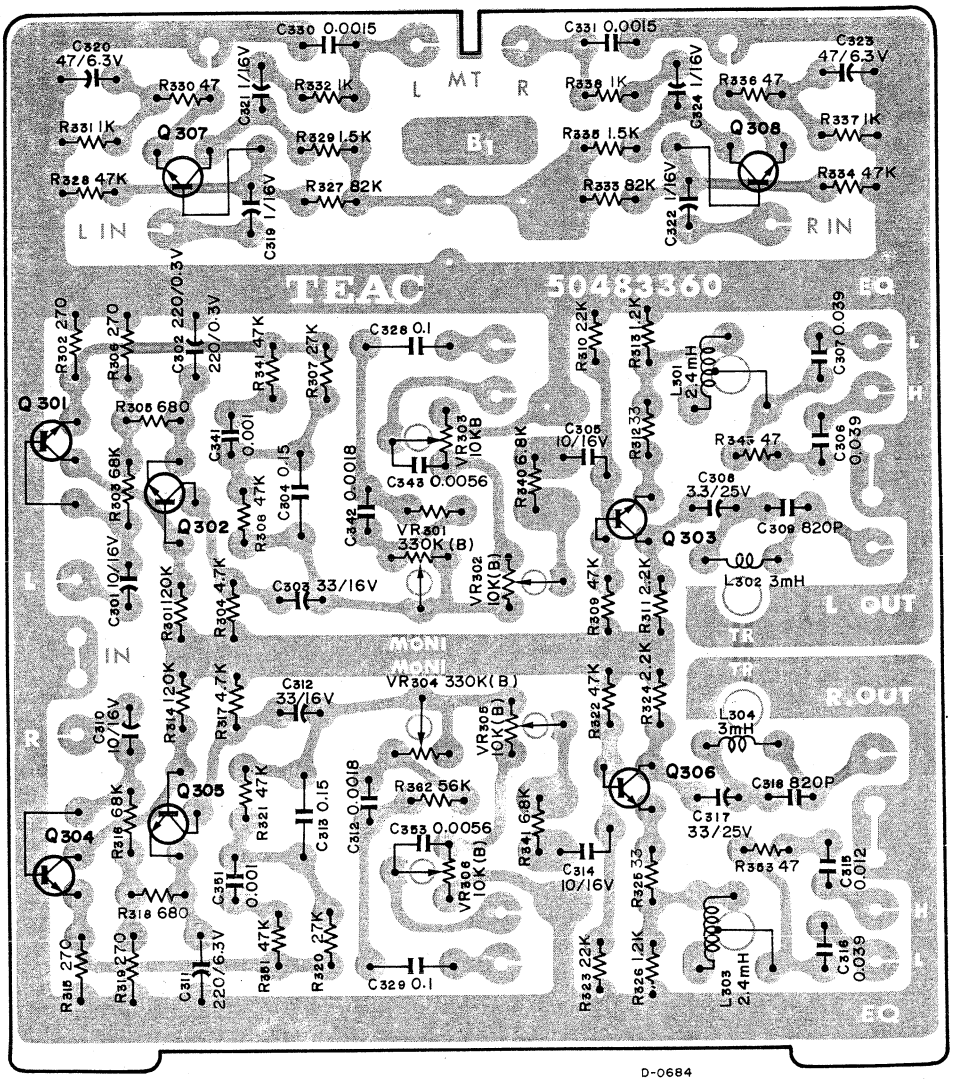


METER AND REC. EQ. AMPLIFER

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION		1st	2nd	3rd
2-51	50490240	PC Board Assy				
		SILICON TRANSISTORS				
Q301/304	50423870	2SC693-G				
Q302/305	50424220	2SC828-S				
Q303/306	50424220	2SC828-S				
Q307/308	50424220	2SC828-S				
		CARBON RESISTORS				
		ALL RESISTORS IN OHM, 10% TOLERANCE 1/4 WATT UNLESS OTHERWISE NOTED.				
R301/314	50515650	120k				
R302/315	50515270	270				
R303/316	50515620	68k				
R304/317	50515460	4.7k				
R305/318	50515320	680				
R306/319	50515270	270				
R307/320	50515560	27k				
R308/321	50515590	47k				
R309/322	50515590	47k				
R310/323	50515540	22k				
R311/324	50515380	2.2k				
R312/325	50515170	33				
R313/326	50515350	1.2k				
R327/333	50515630	82k				
R328/334	50515590	47k				
R329/335	50515360	1.5k				
R330/336	50515170	47				
R331/337	50515340	1k				
R332/338	50515340	1k				
R340·341	50515490	6.8k				
R342/352	50515610	56k				
R343/353	50515170	47				
		TRIMMER RESISTORS				
VR301/304	50533670	330kΩ B 10φ				
VR302/305	50533480	10kΩ B 10φ				
VR303/306	50533480	10kΩ B 10φ				
		CAPACITORS				
		ALL CAPACITORS IN MICRO FARADS UNLESS OTHERWISE NOTED.				
C301/310	50554050	Elec.	10 16V			
C302/311	50554330	Elec.	220 6.3V			
C303/312	50554260	Elec.	33 16V			
C304/313	50548310	Mylar	0.15 50V			
C305/314	50554050	Elec.	10 16V			
C306/315	50548950	Mylar	0.012 50V			
C307/316	50549240	Mylar	0.039 50V			
C308/317	50554220	Elec.	3.3 25V			
C309/318	50543440	Polyst.	820p 50V			
C319/322	50557030	Elec.	1 16V			
C320/323	50554030	Elec.	47 6.3V			
C321/324	50557030	Elec.	1 16V			
C326/327	50548210	Mylar	0.0022 50V	Discontinued		
C328/329	50548040	Mylar	0.1 50V			
C330/331	50548120	Mylar	0.0015 50V			
C341/351	50548780	Mylar	0.001 50V			
C342/352	50548880	Mylar	0.0018 50V	50543130 Polyst. 500p		
C343/353	50548920	Mylar	0.0018 50V			
		COILS				
L301/303	50566370	Record Compensation 2.4∿4.2mH				
L302/304	50566300	Trap 3mH				

PC BOARD
A-3340

METER AND REC. EQ. AMPLIFIER

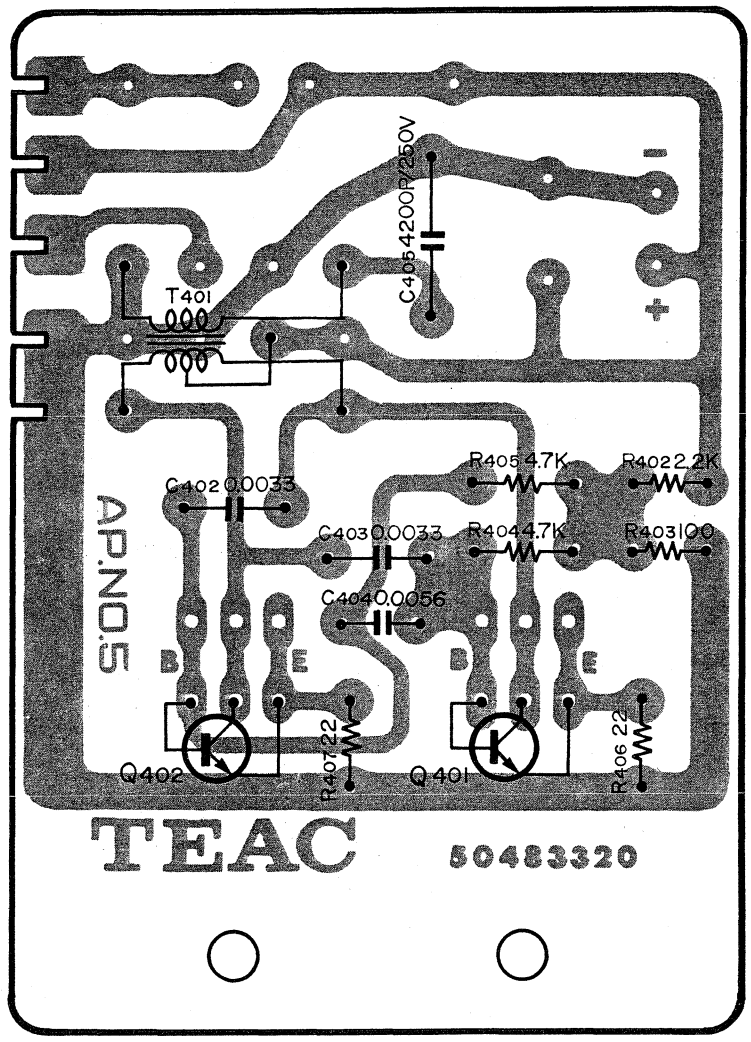


BIAS OSCILLATOR

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2-47	50490290	PC Board Assy			
T401	50563230	Coil, Oscillator			
		SILICON TRANSISTORS			
Q401·402	50424450	2SC1226A-R			
		RESISTORS			
R402	50514920	Carbon 2.2kΩ 1/2W			
R403	50515220	Carbon 100Ω 1/4W			
R404·405	50516440	Carbon 4.7kΩ 1/2W			
R406·407	50516130	Carbon 22Ω 1/2W			
		CAPACITORS			
C402·403	50548810	Mylar 0.0033μF 50V			
C404	50548260	Mylar 0.0056μF 50V			
C405	50544040	Mica 4200pF 250V			

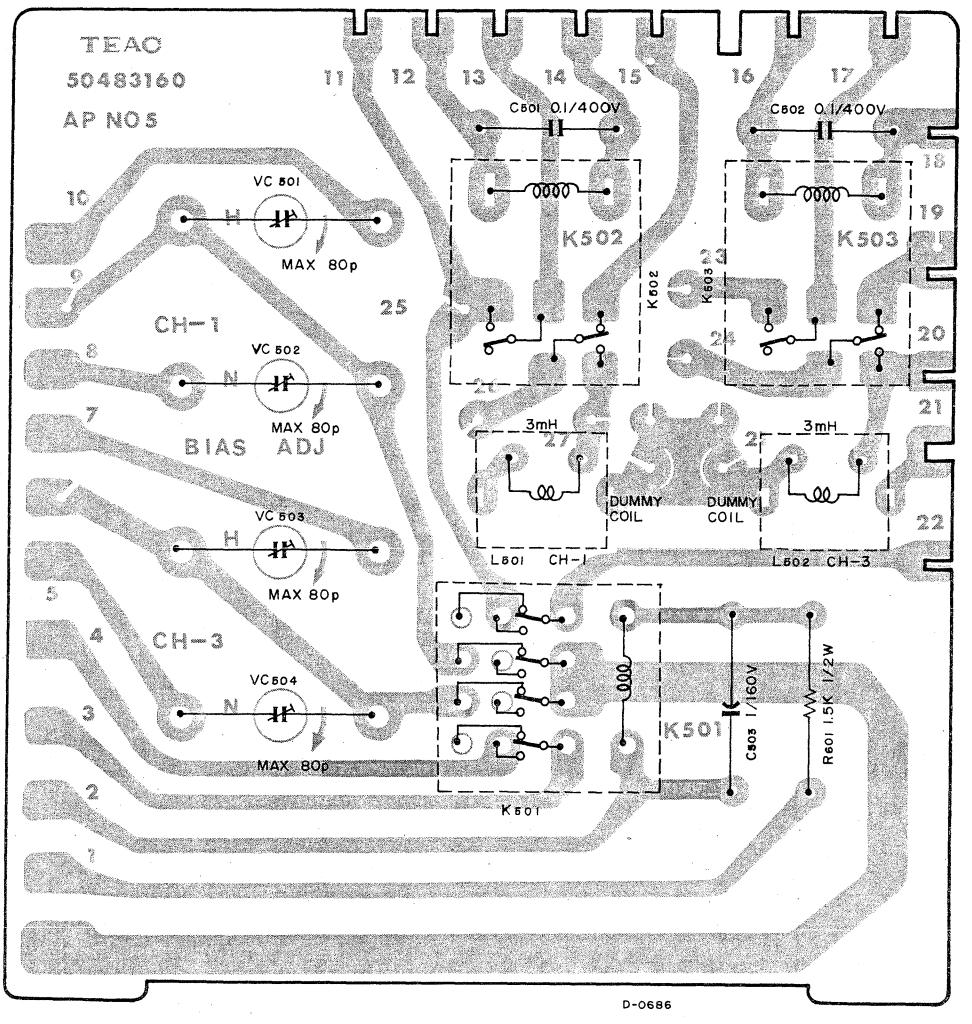
PC BOARD
A-3340

BIAS OSCILLATOR



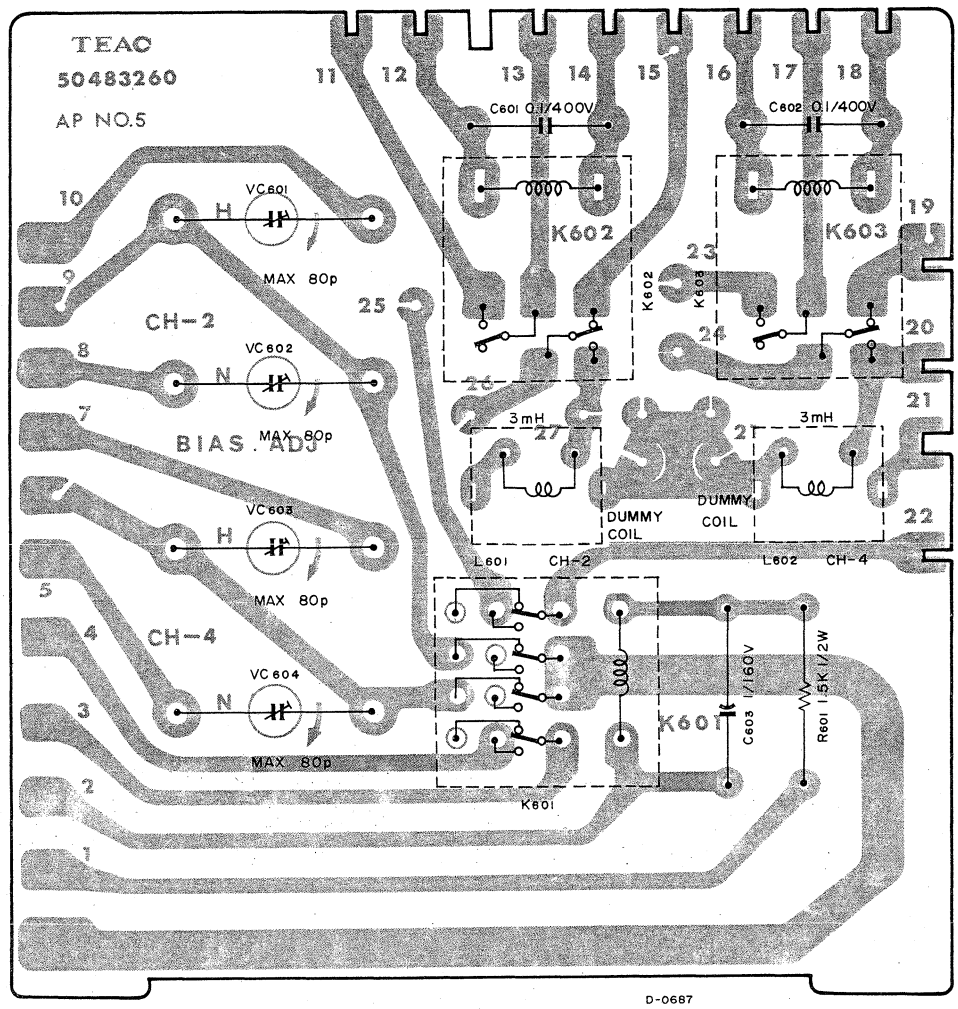
D-0690

BIAS ADJUST ASSY A



CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2-52	50490220	PC Board Assy			
VC501·502	50547070	Trimmer Capacitor, MAX 80pF			
VC503·504	50547070	Trimmer Capacitor, MAX 80pF			
L501·502	50566620	Coil, Dummy Load			
C501·502	50549920	Cap., Mylar 0.1μF 400V			
C503	50554380	Cap., Elec. 1μF 160V			
K501	50610730	Relay, 4T DC 100V			
K502·503	50610790	Relay, 2T DC 24V			
R501	50574860	Resistor, Carbon 1.5kΩ 1/2W			

BIAS ADJUST ASSY B



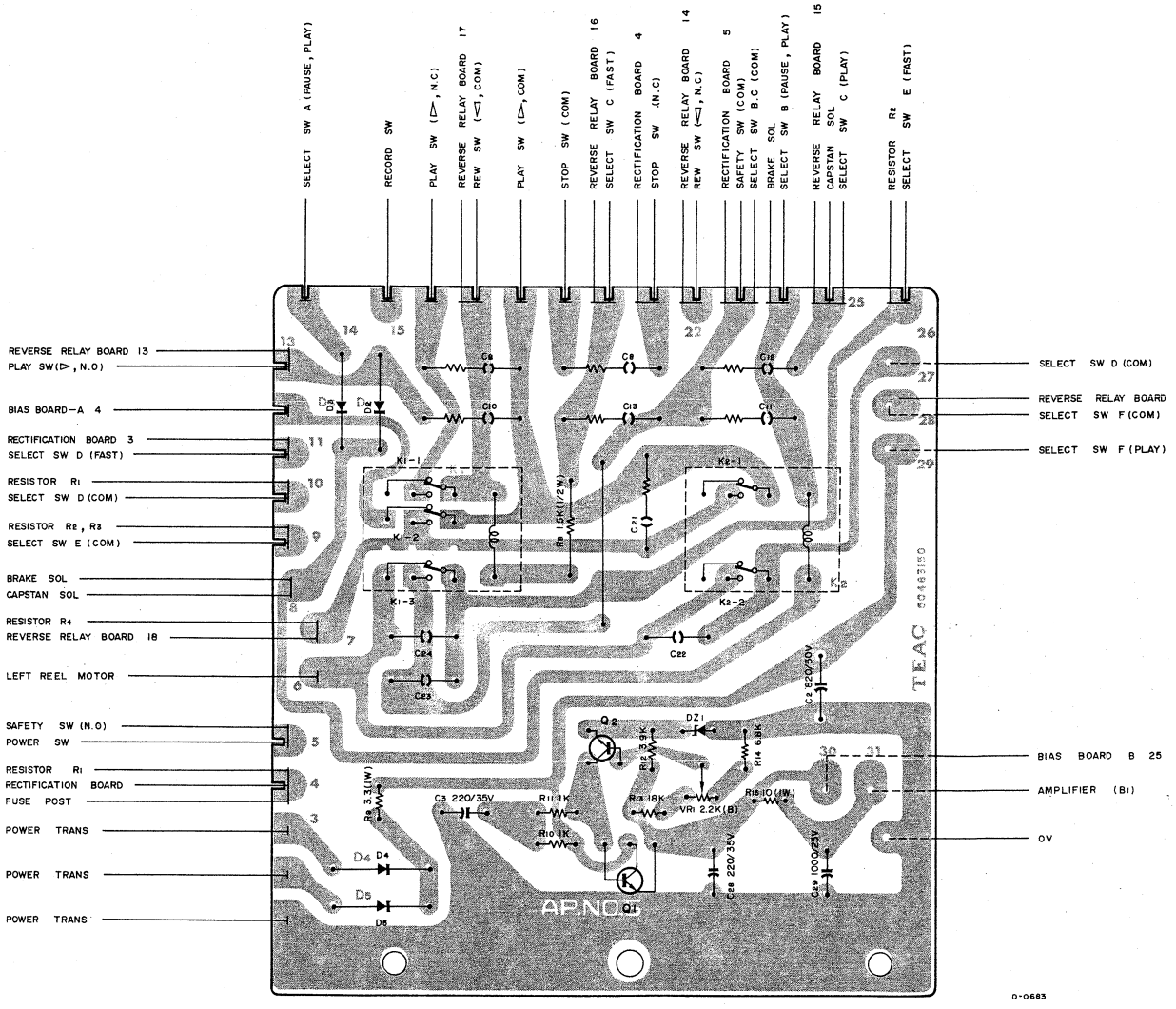
CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2-53	50490210	PC Board Assy			
VC601·602	50547070	Trimmer Capacitor, MAX 80pF			
VC603·604	50547070	Trimmer Capacitor, MAX 80pF			
L601·602	50566620	Coil, Dummy Load			
C601·602	50549920	Cap., Mylar 0.1μF 400V			
C603	50554380	Cap., Elec. 1μF 160V			
K601	50610730	Relay, 4T DC 100V			
K602·603	50610790	Relay, 2T DC 24V			
R601	50574860	Resistor, Carbon 1.5kΩ 1/2W			

CONTROL RELAY

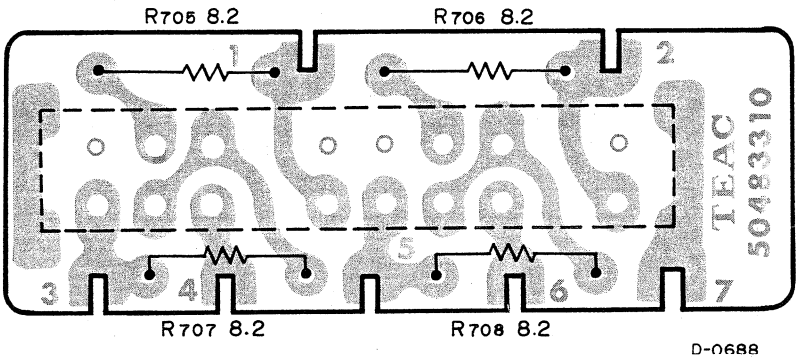
CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2-48	50490230	PC Board Assy			
		RELAYS			
K1	50610730	4T, MY-4-0 DC 100V			
K2	50610750	2T, MY-2-0 DC 100V			
		SILICON TRANSISTORS			
Q1	50424270	2SD317-P			
Q2	50423510	2SC733-Y			
		DIODES			
D2·4·5	50422360	FR2-06			
D3	50422380	FR2-10			
DZ1	50422580	02Z 6.2A			
		RESISTORS			
R7	50574860	Carbon 1.5kΩ 1/2W			
R8	50525440	Wire Wound 3.3Ω 1W			
R9	50525100	Wire Wound 10Ω 1W			
R15·16	50515340	Carbon 1kΩ 1/4W			
R17·20	50515430	Carbon 3.9kΩ 1/4W			
R18	50515480	Carbon 8.2kΩ 1/4W			
R19	50515510	Carbon 15kΩ 1/4W			
		TRIMMER RESISTOR			
VR1	50533640	2.2kΩ B 10ϕ			
		CAPACITORS			
C2	50554380	Elec. 220μF 35V			
C3	50554440	Elec. 1000μF 25V			
C8∿13	50529050	Spark Killer 0.1μF + 120Ω 400V			
C21	50529050	Spark Killer 0.1μF + 120Ω 400V			
C22·23·24	50548390	Mylar 0.1μF 400V			
C38	50557080	Elec. 820μF 50V			
C39	50554630	Elec. 220μF 50V			

PC BOARD
A-3340

CONTROL RELAY

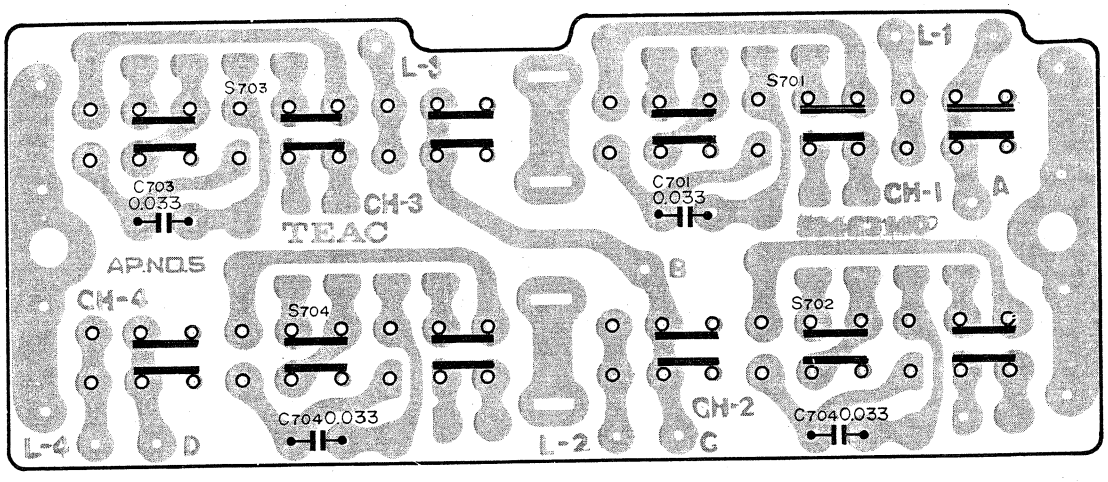


HEADPHONE SWITCH



CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
2-67	50490190	PC Board Assy			
	50483310	PC Board			
R705∿708	50515080	Resistor, Carbon 8.2Ω 1/4W			
	50444470	Switch, Slide			

SYMUL-SYNC



D-0689

CIRCUIT REF.NO.	TEAC PARTS NO.	DESCRIPTION	1st	2nd	3rd
1-10	50483140	PC Board			
	50444480	Switch, Slide			
C701∿704	50548240	Cap., Mylar 0.033μF 50V			

Important Information for Service Stations and Customers

TEAC MANUAL CHANGE SHEET

SERIES NO.

MT2300C103 MT2500C104 MT3300C101 MT3310C101

APPLICABLE SERIAL NO.

10500 / 11500(BLK) *FOR A-2500*

LOCATION IN SERVICE MANUAL

CONTROL PANEL

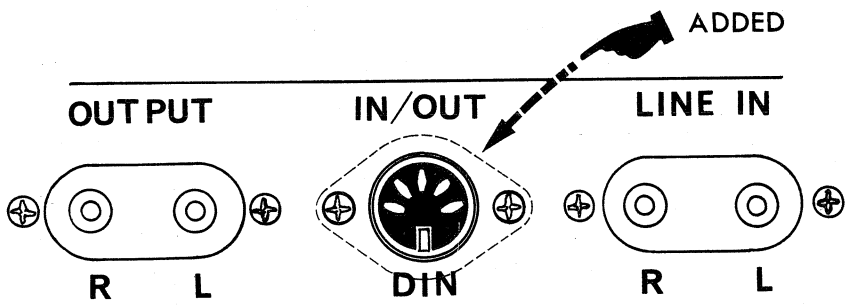
MODELS A-2300, A-2500, A-3300

ADDITION OF DIN CONNECTOR

DESCRIPTION	MODEL	PARTS NO.
DIN CONNECTOR	A-2300(DM) TEAC 2300(UL) A-2500(DM) TEAC 2500(UL) A-3300(DM) TEAC 3300(UL)	50430010

ALSO APPLICABLE

MODEL		SERIAL NO.
A-3300-10(EX)		7021
	(EX)	7101
	TEAC	7151
A-2300	(EX)	21010
	(DM)	21090



NOTE

DM : For only domestic (Japan) market decks, all models.

EX : For all export versions except TCA or Japan, all models.

TCA: For TCA (US) versions only, all models.

TEAC CORPORATION

Important Information for Service Stations and Customers

TEAC MANUAL CHANGE SHEET

SERIES NO. MT2500C107 / MT3300C102
MT3310C102

APPLICABLE SERIAL NO.

6341 *FOR A-2500*

LOCATION IN SERVICE MANUAL

REAR COVER ASSY

MODELS A-2300, A-2500, A-3300, A-3340

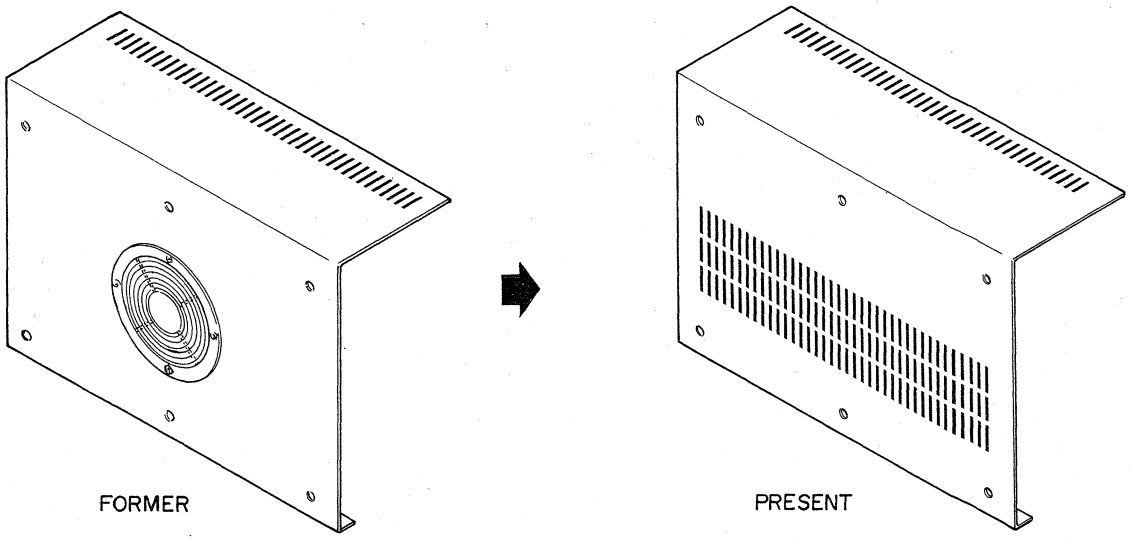
REAR COVER REVISION

Rear Cover Assy has been revised as shown in the below illustration.

DESCRIPTION	MODELS	TEAC PARTS NO.	
		FORMER	PRESENT
REAR COVER ASSY	A-3300 A-3340	50287620	50288300
	A-1230 A-2520	50941242	50288290
	A-2100 A-2300	50286631	50288280

ALSO APPLICABLE

MODEL	SERIAL NO.
A-2100 (DM)	3441
A-3340 (EX)	114801
(DM)	114831
(EX)	114871
(DM)	114941



M-0250

TEAC CORPORATION

Important Information for Service Stations and Customers

TEAC® MANUAL CHANGE SHEET

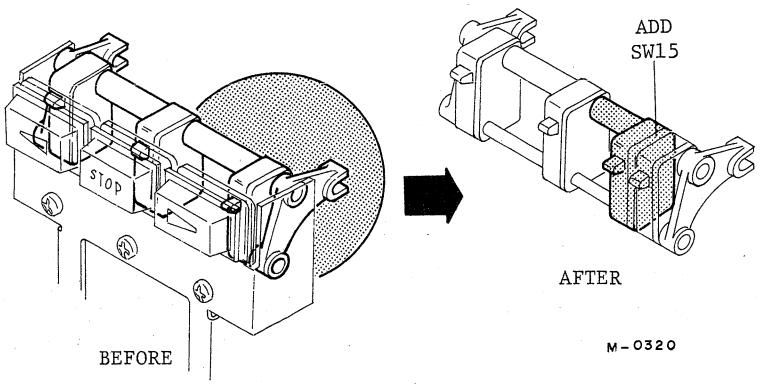
APPLICABLE CHASSIS NO.
SEE BELOW CHART

LOCATION IN SERVICE MANUAL
CONTROL PANEL -EXPLODED VIEW-

MODELS A-2300, A-3300, A-2340, A-3340

RECORDING RELAY CIRCUIT CHANGE

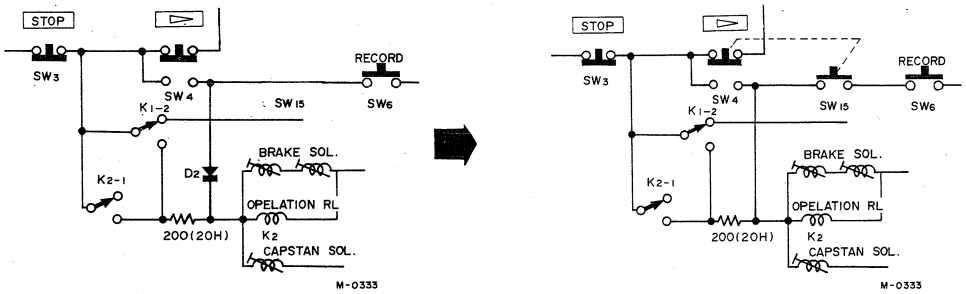
To insure reliable operation of the recording relay circuit the circuit and parts have been revised as shown in the diagram. Diode D2 has been deleted and switch SW15 has been added.



CONTROL PUSH BUTTON ASSY

MODELS	APPLICABLE SERIAL NO.
A-2300	22611 AND AFTER
A-1230	66951 AND AFTER
A-2340	1387 AND AFTER
A-3300(10)	12621 AND AFTER
A-3340	115701 AND AFTER

Partial schematic shows change in this circuit.



ORIGINAL CIRCUIT REVISED CIRCUIT

REF.NO.	DESCRIPTION	TEAC PARTS NO. BEFORE	TEAC PARTS NO. AFTER
2-30	BASE PLATE HOLDER A	50241121 ×2	50241121 ×1
	BASE PLATE HOLDER B	------	50241950 ×1
	MICRO SW V-1A44	------	50446180 ×1
	DIODE FR2-06	50446180	OMIT

TEAC CORPORATION

TEAC® MANUAL CHANGE SHEET

SERIES NO. MT2300C207 MT3300C104
MT2500C208 MT3310C104

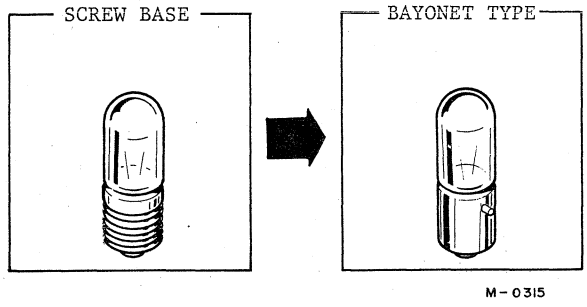
MODELS A-2100
A-2300, A-1230, TEAC-1230
A-2500, A-1250, TEAC-1250
A-3300, TEAC-3300
A-3340, TEAC-3340

APPLICABLE SERIAL NO.
SEE BELOW CHART

LOCATION IN SERVICE MANUAL

PILOT LIGHT CHANGE

Pilot light assy has been changed from screw base to bayonet type to preclude loosening of bulb during transportation.



MODELS	APPLICABLE SERIAL NO.
A-2300	21010 AND AFTER
A-1230	65971 AND AFTER
TEAC-1230	111701 AND AFTER
A-2500	10500 AND AFTER
A-1250	55651 AND AFTER
TEAC-1250	101001 AND AFTER
A-3300(10)	7021 AND AFTER
A-3300(11)	1980 AND AFTER
A-3300(12)	0501 AND AFTER

The chart below describes the changes. For reference, see the appropriate schematic and exploded view.

DESCRIPTION	TEAC PARTS NO. BEFORE	TEAC PARTS NO. AFTER
Socket, Lamp	50415030	50415250
Lamp, Bayonet Type (8V)(DM,EX)	50414131	50414510
Lamp, Bayonet Type (8V)(TCA)	50414131	50414580

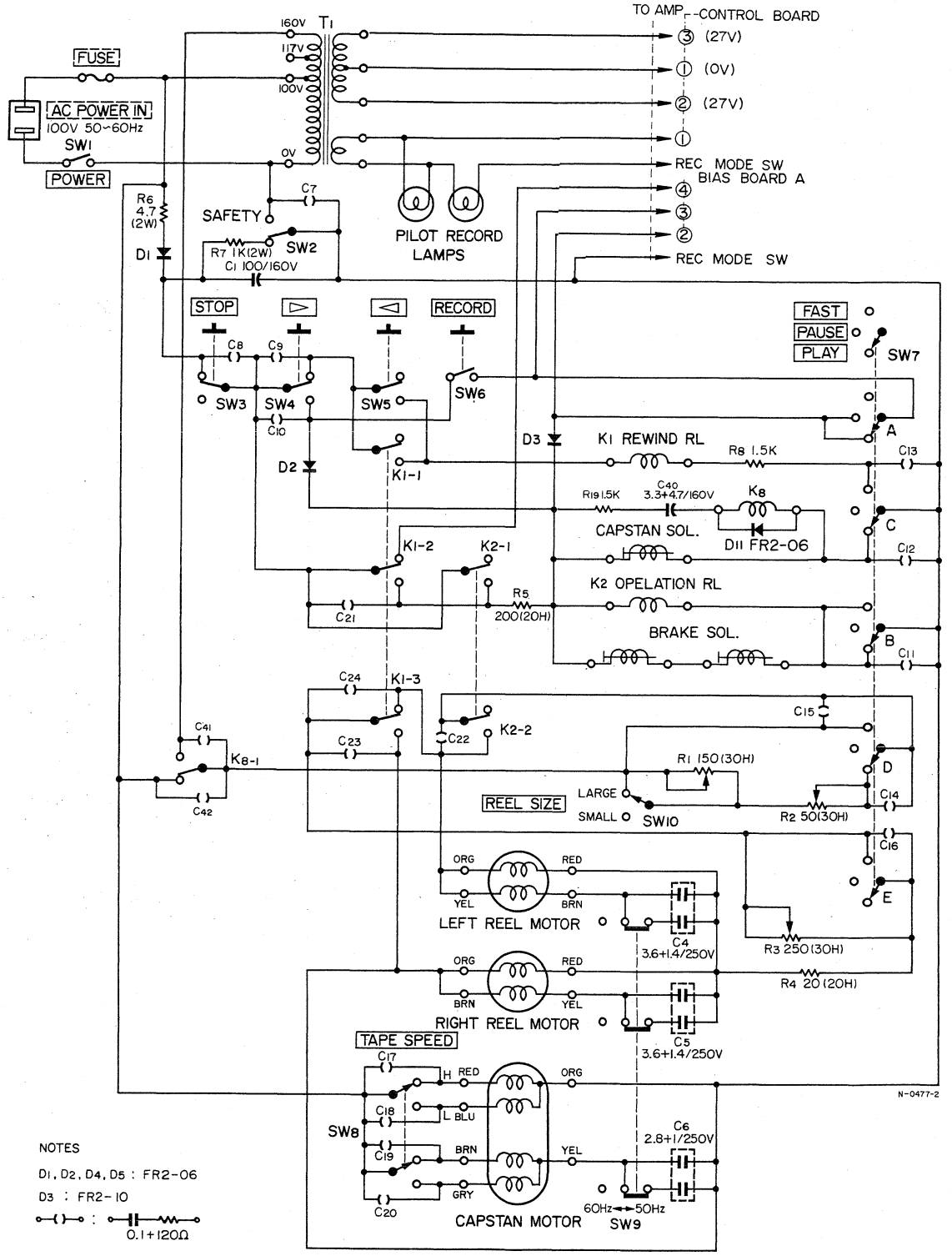
NOTE: DM For only domestic (Japan) market decks, all models.
EX For all export versions except TCA or Japan, all models.
TCA For TCA (US) versions only, all models.

E-280, E-470

TEAC CORPORATION

SCHEMATIC DIAGRAM
A-3340

TAPE TRANSPORT



NOTES

D1, D2, D4, D5 : FR2-06

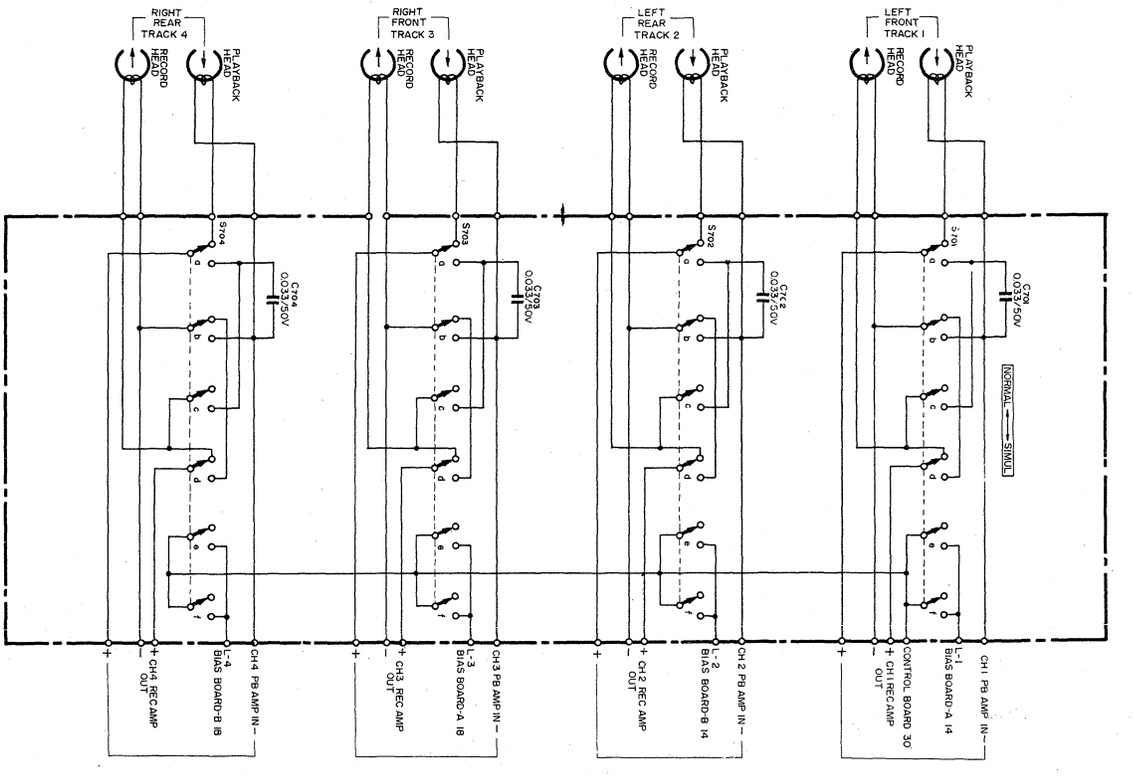
D3 : FR2-10

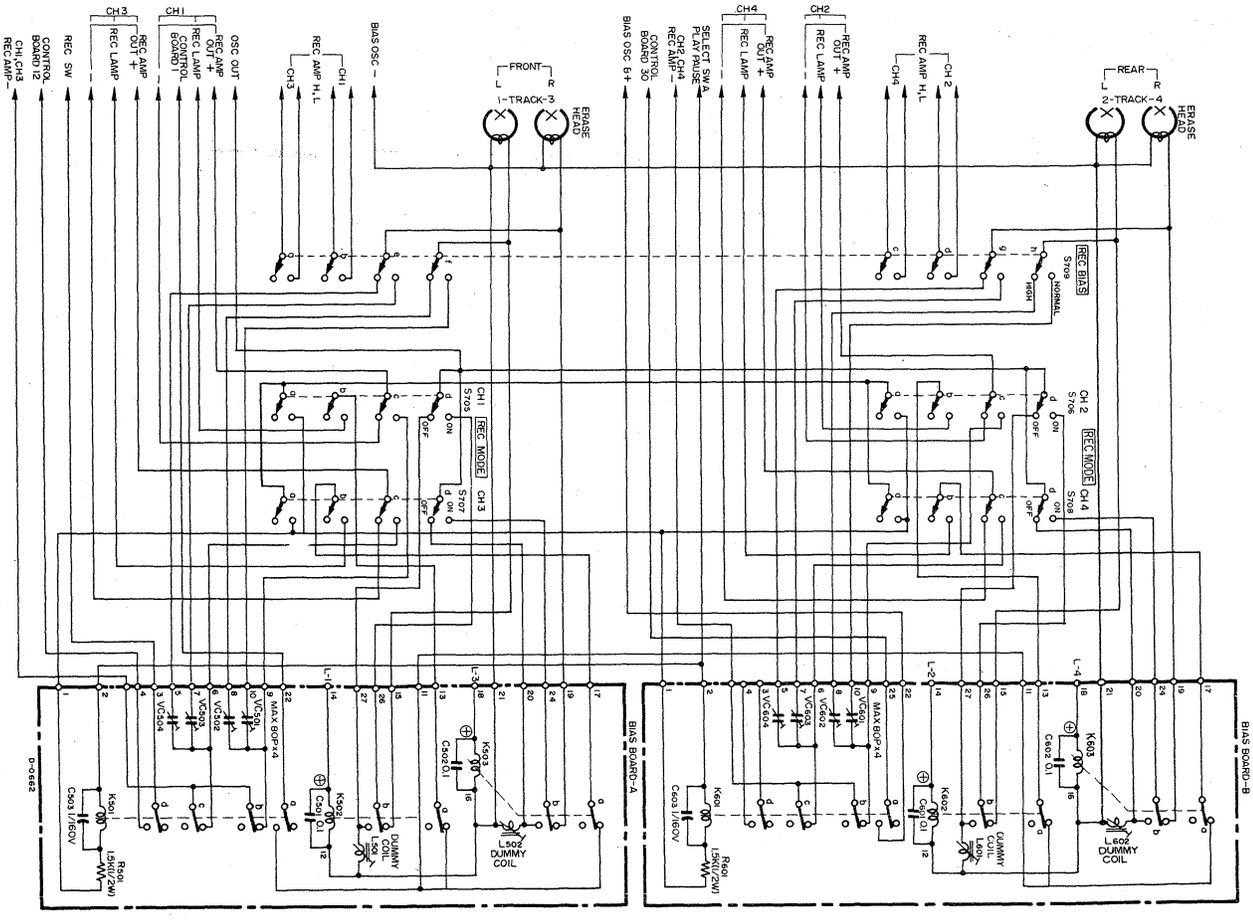
: 0.1+120Ω

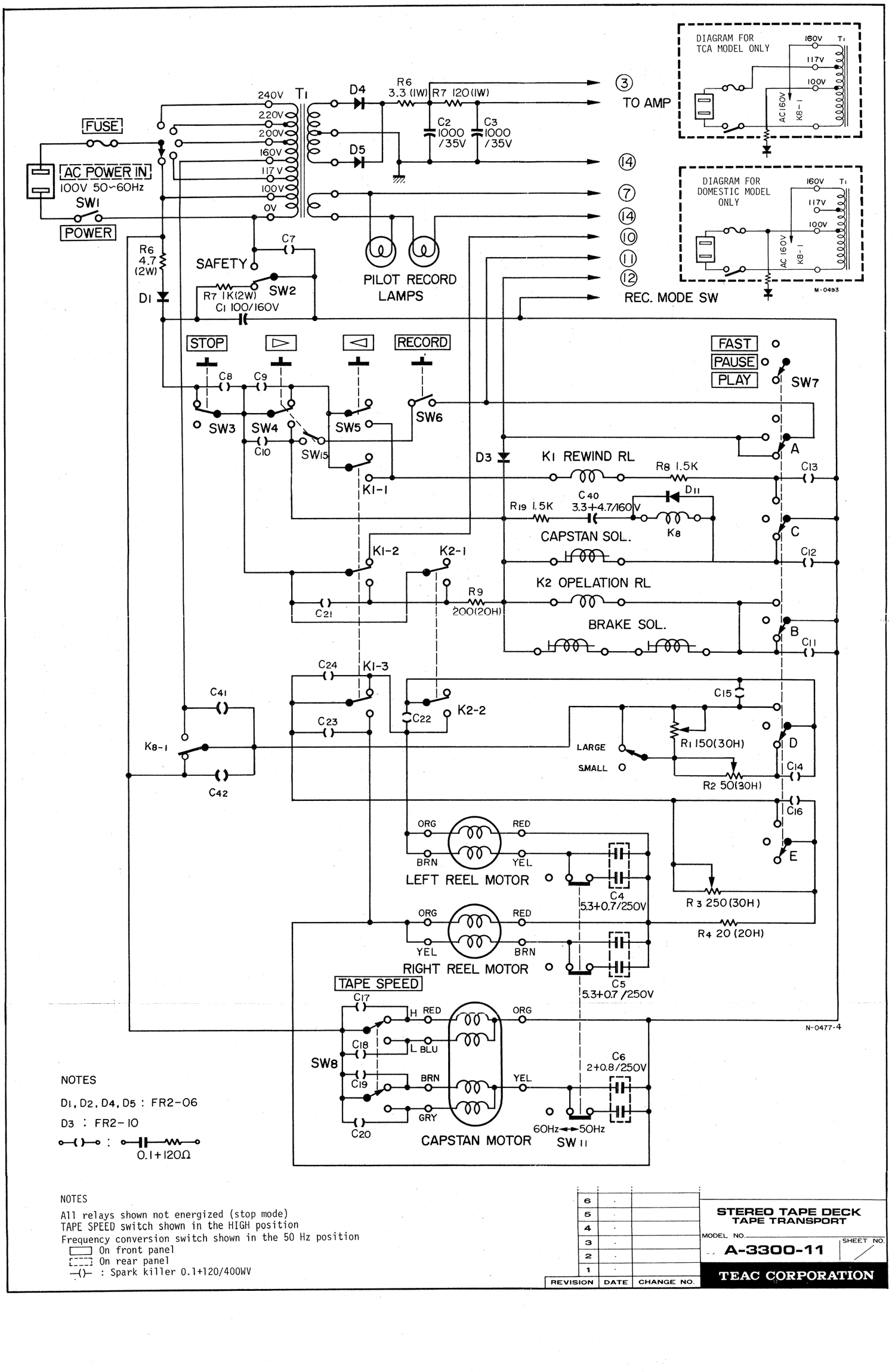
SCHEMATIC DIAGRAM

A-3340

HEAD ASSY







NOTES

D1, D2, D4, D5 : FR2-06

D3 : FR2-10

—( )— : 0.1+120Ω

NOTES

All relays shown not energized (stop mode)
TAPE SPEED switch shown in the HIGH position
Frequency conversion switch shown in the 50 Hz position
▭ On front panel
▭ On rear panel
—( )— : Spark killer 0.1+120/400WV

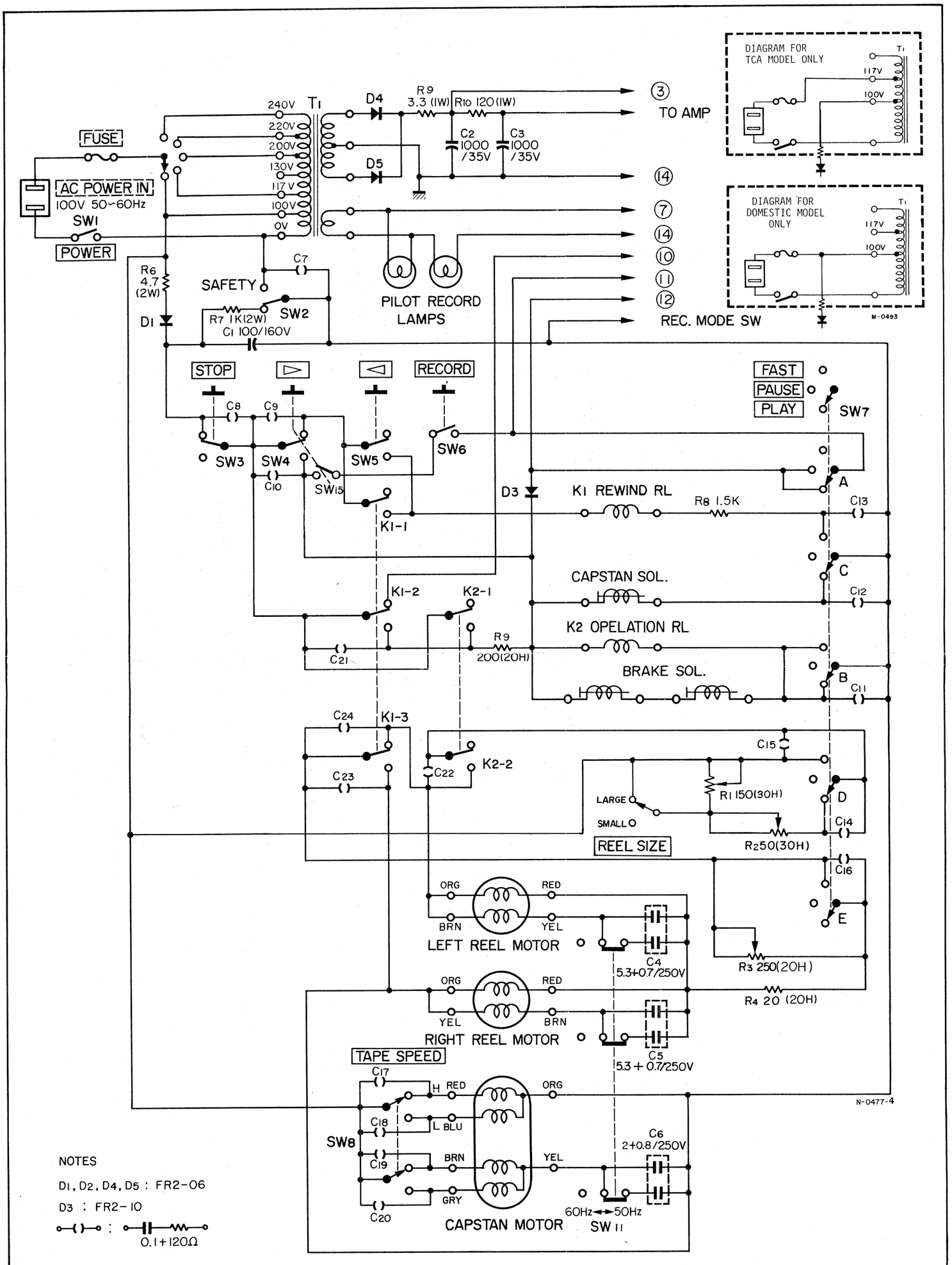
REVISION	DATE	CHANGE NO.
6		
5		
4		
3		
2		
1		

STEREO TAPE DECK
TAPE TRANSPORT

MODEL NO. A-3300-11

SHEET NO.

TEAC CORPORATION



NOTES

D1, D2, D4, D5 : FR2-06

D3 : FR2-10

: 0.1+120Ω

NOTES

All relays shown not energized (stop mode)
TAPE SPEED switch shown in the HIGH position
Frequency conversion switch shown in the 50 Hz position
On front panel
On rear panel
: Spark killer 0.1+120/400WV

REVISION	DATE	CHANGE NO.
6		
5		
4		
3		
2		
1		

STEREO TAPE DECK
TAPE TRANSPORT

MODEL NO. A-3300-10,12

SHEET NO.

TEAC CORPORATION

COMPARISON CHART

	A-2300	A-3300-10	A-3300-11	A-3300-12
R117/134	2.2k	2.2k	1k	2.2k
R209/225	560	560	680	680
R307/320	27k	27k	22k	22k
VR201/203	470(B)	470(B)	2.2k(B)	2.2k(B)
C306/315	0.027uF	0.027uF	0.012uF	0.027uF
C307/316	0.047uF	0.047uF	0.022uF	0.047uF

PLAYBACK, MIC AMP BOARD
48231
LINE, PHONE AMP BOARD
48232
RECORD, METER AMP BOARD
48233
BIAS OSC BOARD
48234
TAPE SPEED
MONITOR
REC EQ
OUTPUT
PLAY HEAD
IN/OUT (DIN)
LINE IN
MIC IN
LINE
MIC
PHONE
REC. BIAS
RECORD MODE
LEFT
RIGHT
RECORD
ERASE
RECORD LAMP
SELECT SW A(PLAY, PAUSE)
CONTROL BOARD
REC. SW
SELECT SW B
CONTROL BOARD (DC POWER) 48237

NOTES
Schematic diagram shown in PLAYBACK mode.
Unless otherwise specified:
All resistors values in ohms, 1/4 watt,
k = 1,000 ohms.
All capacitors values in micro farads
Screwdriver adjustment
: on front panel, [----]: on rear panel.

CIRCUIT REF.NO.	DESCRIPTION	CIRCUIT REF.NO.	DESCRIPTION	CIRCUIT REF.NO.	DESCRIPTION
Q101/104	2SC732(BL) or 2SC693(F) or 2SC1000(BL)	Q102/105	2SA494(Y) or 2SA572 or 2SA666(S)	Q201/204	2SC644(T) or
				Q301/304	2SC369(BL) or
				Q107/108	2SC693(F)
Q103/106	2SC536(E) or 2SC733(Y) or 2SC828(S)	Q107/108	2SC693(F) or 2SC828(S) or 2SC369(BL)	Q203/205	2SC372(Y) or
				Q204/206	2SC536(E) or
				Q307/308	2SC828(S)
				Q302/305	
		Q401/402	2SC971(Y)		

REVISION	DATE	CHANGE NO.
6		
5		
4		
3		
2		
1	4-72	

TAPE DECK
PREAMPLIFIER
MODEL NO. A-3300
SHEET NO.
TEAC CORPORATION